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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2095



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YUGOSLAV-ROMANIAN COMMODITY TRADE LISTS, 1979

Belgrade MEDJUNARODNI UGOVORI (supplement to SLUZBENI LIST SFRJ) in Serbo-Croatian No 11, 28 Oct 80 pp 689-692

[Order to ratify the trade protocol for 1979 between Yugoslavia and Romania]

[Excerpts] The Trade Protocol for 1979 Between the Socialist Federal Republic of Yugoslavia and the Socialist Republic of Romania, with appendices, signed in Bucharest 8 February 1979, is hereby ratified.

List A/1979. Exports From the Socialist Federal Republic of Yugoslavia to the Socialist Republic of Romania

No	Commodity Designation	Unit of Measurement	Quantity or Value
1	2	3	4
1	Electric cables	Thousands of dollars	3,000
2	Railroad rails	Thousands of tons	28
3	Rolled structural steel	"	20
4	Steel tires	Tons	4,000
5	Gray pig iron	Thousands of tons	50
6	Exchange and processing in ferrous metallurgy	Thousands of dollars	15,000
7	Rolled copper and brass products	Tons	500
8	Metallic silicon	"	5,000
9	Ferrochrome	"	1,000
10	Ferromanganese	"	3,000
11	Drawn alloy steel for tools	"	1,000
12	Drawn carbon steel for tools	"	500
13	Pyrite concentrate	Thousands of tons	100
14	Special alumina	Tons	6,000

List A/1979 (continued)

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
15	Bauxite	Thousands of tons	200
16	Refractory magnesite and chromomagnesite bricks	"	32
17	Silicate bricks	Tons	500
18	Graphite vessels and sheets	Thousands of dollars	500
19	Electrocorundum	Tons	7,000
20	Abrasives	Thousands of dollars	3,000
21	Synthetic cryolite	Tons	2,000
22	Xanthates	"	1,400
23	Explosives	Thousands of dollars	1,000
24	Zinc oxide	Tons	1,500
25	Chemicals for plant pest and disease control	Thousands of dollars	2,000
26	Phosphoric acid	Thousands of tons	25
27	Pharmaceutical raw materials and products	Thousands of dollars	2,500
28	Naphthalene	Tons	1,000
29	Varnishes and paints	Thousands of dollars	1,000
30	Special oils	Tons	1,000
31	Ethylene	Thousands of tons	16
32	Propylene	"	31
33	Potassium hydroxide	Tons	500
34	Miscellaneous chemical products	Thousands of dollars	3,000
35	Motor vehicle tires	"	200
36	Conveyor belts	"	1,500
37	Cellophane	Tons	500
38	Electric power	Million kw	250
39	Steel cylinders	Thousands	55
40	Electric insulators	Thousands of dollars	3,000
41	Asbestos and asbestos products	"	2,000
42	Ferode	"	500
43	Metallurgical coke	Thousands of tons	200
44	Coal used for production of energy	"	300
45	Storage batteries	Thousands of dollars	4,000

List A/1979 (continued)

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
46	Industrial and drive chain	Thousands of dollars	1,000
47	Miscellaneous industrial sieves and screens	"	1,000
48	Products of machinebuilding:		
	Agricultural machines and equipment for tractors (machines and other agricultural equipment)	"	4,000
	Cooperation and mutual deliveries in shipbuilding	"	20,000
	Ship repairs	"	4,500
	3,400-kw BO-BO electric locomotives and spare parts	Units	24
	Machine tools, including subassemblies and parts	Thousands of dollars	3,000
	Technical electrical and electronic products	"	6,000
	Cooperation and mutual deliveries of equipment for ferrous metallurgy	"	1,000
	Equipment for the chemical and petro- chemical industry, including devices used for automation	"	2,000
	Equipment and subassemblies for the food processing industry	"	1,500
	Escalators	"	1,500
	Equipment and subassemblies for light industry	"	1,000
	Tools	"	1,000
	Ball bearings	"	100
	Cooperation in the production of hydraulic presses and mutual deliveries	"	1,000
	Miscellaneous deliveries	"	10,000
49	Consumer goods	"	5,000
50	Exchange and cooperation in light industry	"	2,000
51	Rayon yarn	Tons	1,000
52	Raw and processed foods	Thousands of dollars	6,000
53	Sugar	Thousands of tons	70
54	Transport and other services	Thousands of dollars	20,000
55	Books, magazines, films, philatelic goods and phonograph records	"	300
56	Commodity trade in local border traffic	"	3,000

List B/1979. Exports From the Socialist Republic of Romania to the Socialist Federal Republic of Yugoslavia

<u>No</u>	<u>Commodity Designation</u>	<u>Unit of Measurement</u>	<u>Quantity or Value</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
1	Ship plating	Tons	5,000
2	Hot-rolled strip	Thousands of tons	20
3	Drawn and rolled wire	Tons	5,000
4	Structural steel	Thousands of tons	10
5	Prerolled ingots	"	145
6	Exchange and processing in ferrous metallurgy	Thousands of dollars	15,000
7	Light-gauge sheet	Tons	2,200
8	Galvanized sheet	"	6,100
9	Aluminum in ingots	"	1,000
10	Electric cables and conductors	Thousands of dollars	500
11	Petroleum coke	Thousands of tons	14
12	Naphthenic acid	Tons	400
13	Methanol	"	10,000
14	Synthetic rubber	"	10,000
15	Heavy soda ash	"	18,000
16	Butanol	"	2,000
17	Caustic soda, lye	Thousands of tons	35
18	Formic acid	Tons	500
19	Alkyl amine	"	2,000
20	Dimethyl terephthalate	"	1,000
21	Cyanuric chloride	"	500
22	Ammonia	Thousands of tons	90
23	Octyl alcohol	Tons	850
24	Novolac	"	1,500
25	Technical ammonium nitrate	"	10,000
26	Dibasic ammonium phosphate	"	15,000
27	Ethylbenzene	"	1,000
28	Orthoxylene	"	1,000
29	Tribasic sodium phosphate	"	6,000
30	Paraffin	"	500
31	Natural asphalt	"	10,000
32	Toluene	"	6,000
33	Xylene	"	4,000
34	Mineral oils	"	20,000

List B/1979 (continued)

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
35	Petroleum derivatives	Thousands of dollars	12,000
36	Pharmaceutical raw materials and products	"	1,000
37	Miscellaneous chemical products	"	10,000
38	Phenol	Tons	2,000
39	Acetone	"	4,000
40	Motor vehicle tires	Thousands of dollars	1,000
41	Synthetic fibers	Tons	3,500
42	Beech pulpwood	Thousands of stacked meters	40,000
43	Charcoal	Tons	10,000
44	Kraft paper	"	4,000
45	Parchment paper	"	1,000
46	Two-ply and three-ply cardboard	"	3,000
47	Paper pulp for the paper industry	"	5,000
48	Softwood lumber	Thousands of cubic meters	50
49	Ceramic tiles	Thousands of dollars	500
50	Rock salt	Thousands of tons	130
51	Products of machinebuilding:		
	Agricultural machines and equipment (tractors, machines, spare parts and other agricultural equipment)	Thousands of dollars	4,000
	Cooperation and mutual deliveries in shipbuilding	"	15,000
	5,100-kw Co-Co electric locomotives and spare parts	Units	24
	Machine tools, including subassemblies and parts	Thousands of dollars	3,000
	Electronic and technical electrical products	"	6,000
	Cooperation and mutual deliveries of equipment for ferrous metallurgy	"	1,000
	Equipment for the chemical and petro- chemical industry	"	2,000
	Cooperation and mutual deliveries of equipment for the food processing industry	"	1,500
	Equipment for cement plants	"	5,000
	Equipment for the petroleum industry	"	4,000

List B/1979 (continued)

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
	Cooperation in the production of hydraulic presses and mutual deliveries	Thousands of dollars	1,000
	Logging tractors	Units	50
	Regulating devices and automation equipment	Thousands of dollars	500
	Ball bearings	"	800
	Trucks for locomotives	Units	24
	Equipment and subassemblies for light industry	Thousands of dollars	1,000
	Miscellaneous deliveries	"	4,100
52	Consumer goods	"	5,000
53	Exchange and cooperation in light industry	"	2,000
54	Raw and processed foods	"	6,000
55	Transport and other services	"	16,000
56	Books, magazines, films, philatelic goods and phonograph records	"	300
57	Exchange of goods in local border traffic	"	3,000

3. This order shall take effect on the eighth day after publication in SLUZBENI LIST SFRJ.

E.p. No 847
Belgrade, 17 May 1979

Federal Executive Council

Chairman,
Veselin Djuranovic (signed)

7045
CSO: 2800

NEW CHEMICAL PLANT IN DEVNYA DESCRIBED

Sofia KHIMIYA I INDUSTRIYA in Bulgarian No 9, 1980 pp 389-390

[Unattributed article: "A New Giant of Bulgarian Chemistry"]

[Text] The new plant in Devnya producing chlorine, vinyl chloride and polyvinyl chloride can truly be called a giant. It is one of the largest projects in the chemical industry during the Seventh Five-Year Plan, and has been ceremoniously opened on the eve of the 36th anniversary of the socialist revolution. With the construction and starting up of this plant, a new beginning has been made in the development of our nation's chemical industry, as the two major chemical complexes in Devnya and Burgas have been organically linked.

The new plant producing chlorine, vinyl chloride and polyvinyl chloride [PVC] is a new one in the most precise sense of this word. It embodies all the possible demands which can and must be made on a modern plant, namely a high level of the intensification, electronization and optimization of the production process, and as a consequence, high intellectualization of labor.

The general plan for the plant was drawn up by the Bulgarian design institutes led by Khimproekt [Chemical Industry Design Institute], and they, with the aid of the corresponding Soviet design organizations and with the participation of Western firms, created a modern plant. The production engineering at the plant employs modern systems which meet the level of the leading producers of chlorine in the USSR, vinyl chloride in the United States and PVC in the FRG. The vinyl chloride line turns out a product of very high purity, one of the highest in the world. A high level of mechanization and automation has been achieved in production control, and in PVC production, the process is monitored and controlled by a computer. This means that in the polymerization process in the entire installation, manual control is impossible. It can be used only in emergency situations and in the manual completion of the given cycle. This leads to a very high level of production process optimization, and simultaneously to high efficiency of the equipment. Very high demands have been made on both the production and auxiliary personnel in terms of their educational qualifications and their professional training.

The scale of construction at the plant can be seen from the volume of capital investments, some 220 million leva. This is the plant with the highest capital investments in the Devnya Chemical Combine [SKhK]. Labor productivity per member of the industrial-production personnel is 3-fold higher than that of the existing plant. It is envisaged that the value of the capital investments will be recouped in 7 years.

Over 20 specialized organizations were involved in carrying out the construction and installation work. For building the plant, construction and installation work was carried out valued at 93,947,000 leva. Machinery and equipment were installed valued at 102,537,000 leva. The following major construction and installation jobs were performed: 45,000 linear meters of piping were produced and installed, 436,000 meters of cable, and much else. Participating in the construction of the plant were 10,000 construction workers, installation workers, investors, designers, operating personnel and workers from 105 plants throughout the nation.

The importance and role of the new plant is not only in satisfying the needs of the nation, but also a large portion of the product will be exported. On the other hand, a characteristic phenomenon is the strategic role of the plant's economic indicators. For example, in comparison with the existing chlorine and PVC plant, the new one has 20 percent fewer production personnel, but it produces 3-fold more product with 3-fold higher labor productivity. The plant's production structure is comprised of three basic activities: the production of chlorine and caustic, vinyl chloride and PVC.

The plant will produce annually: 140,000 tons of chlorine, 150,000 tons of electrolysis caustic soda, 150,000 tons of vinyl chloride, 120,000 tons of PVC, and 23,000 tons of 30-percent hydrochloric acid.

On the basis of the main products, plastics will be produced for machine building, construction, agriculture, transportation, the chemical industry, electronics and instrument building, light industry and consumer goods production.

The volume of industrial product is 71,230,000 leva. The assortment of 8 grades of PVC which the plant can produce provides an opportunity to fully satisfy all the possible demands of our nation's manufacturing industry. From here the plastics processing enterprises will obtain the feedstocks for important products such as tubular and shaped pieces, construction elements, flooring tile, artificial leathers, cable coverings, and household chemicals. Along with the already existing production capacity, after 1981, a production volume of 170,000 tons per year will be attained, and with this the per capita PVC production of Bulgaria will equal the industrially most developed nations. Broad opportunities will be opened up to enlarge the capacity of PVC processing, and this will satisfy the increased need for the modern, more efficient materials both in the nation as well as for exports.

The use of an efficient feedstock for vinyl chloride production has concerned Bulgarian chemists not only in the complexity of this production, but also in the opportunity for a revolution in this area of chemistry. In the new vinyl chloride production, the traditional acetylene and hydrogen chloride have been replaced by chlorine and ethylene.

The nearby Provadiya salt deposit provides the brine for chlorine production. Some 240 Soviet-delivered electrolysis cells have been installed for diaphragm-method chloralkali ["khloraikalna"] electrolysis.

In addition to the large amounts of chlorine which is an essential feedstock for the vinyl chloride, a specialized shop within chlorine production will turn out electrolytic caustic soda. This will have a concentration of about 50 percent, significantly higher than what has been produced up to now at the Devnya SKhK. The role of a group of Soviet specialists has been crucial in rapidly starting up and reaching full capacity in the new chlorine production line.

The second feedstock for PVC production--ethylene--is to be supplied to Devnya from the Burgas Neftokhim [Petrochemical] SKhK over a special pipeline which crosses the Eastern Balkan Range underground. Direct chlorination of the ethylene--a new feature in our plastics production--has been completely developed by our specialists.

The new chlorine, vinyl chloride and PVC plant is a vivid demonstration of fraternal cooperation with the Soviet Union which has been involved in its construction by supplying machinery, equipment and specialists. The buildings of the new plant have gone up in the daily routine of common concerns and problems, of common joys and hopes.

Also actively involved were specialists from the FRG, Italy and the United States. This is proof of the correctness of the foreign policy of the socialist countries, of the need for peaceful coexistence between countries with different social systems, and of the benefit of mutually advantageous economic and scientific-technical cooperation between all countries of the world.

The Devnya chemical workers are preparing to greet the 12th Party Congress with a feeling of proud workers. They are mastering the new equipment in order that they will be able to respond to the new tasks. The labor activeness of all the workers at the complex is constantly growing, and they are developing a pre-congress competition under the motto "Worthy Deeds, the Highest Results in Honor of the Congress."

10272

CSO: 2200

AUTHORITIES HELP ENTERPRISES ADAPT TO NEW CONDITIONS

Budapest FIGYELO in Hungarian 26 Nov 80 p 5

[Article by Dr Gyorgy Varga: "Agreement"]

[Text] The relationship between economic management and the enterprises changes along with the changes in the economic situation and economic regulation. The inherent antagonism between the economic management and the enterprises gradually changed after 1968 to a willingness for cooperation and then this willingness began to lose its steam again with the strengthening of directive methods and with the "tearing-down of regulations." It is enough to remind ourselves of the evaluations of enterprise plans and its consequences.

One of the goals of the economic management system, introduced in 1980, is to strengthen enterprise independence, while it has more-standard and from many aspects new economic requirements for the enterprises. It is understandable that some time is needed for adapting to the new circumstances.

We can say on the basis of experiences gained in the present practice of economic management that the functional organs are trying to eliminate the enterprises' problems without giving up the normative character of economic regulation. There are enterprises which, because of objective reasons or their own shortcomings, have not yet been able to adapt to the requirements of the regulation. It is the problems in adapting to price regulations which must be handled with special flexibility. In some cases, the competent economic management organs, instead of taking administrative measures, conferred with the enterprises involved and made agreements with them about concrete methods, deadlines and conditions of the adaptation.

Yes, agreement--this is the new form of relationship which seems to be developing as a result of the 1980 regulation modification.

The advantage of the agreement is that the participating state economic management organ and the enterprise make mutual commitments. The state economic management organ makes the commitment to give the enterprise a grace period and perhaps financial benefits; the enterprise in turn makes the commitment, to carry out the tasks specified by the deadline specified in the agreement (e.g., the consistent adherence to export prices, increased profitability, etc.

This form of agreement generally has no rules of the game. It would not be good to have any either, for then it would seem that the agreement were an institutional part of economic regulation, open to anyone at any time. Even more precisely: we must avoid even the appearance that, in addition to the unified economic regulation, we created a legal institution which legalizes the loosening of normative requirements, exempting the state economic management organs from the consistent implementation of normative requirements.

To avoid any misunderstanding, it is well to emphasize that the agreements cannot mean an expansion of preferences and exceptions. Their sole purpose is to give one or another enterprise a reasonable breathing period to cope with difficulties of compliance--without diminishing the responsibility of either the state organs or the enterprises. The requisites for this are a closer consultative relationship between the state economic management organs and the enterprises, more willingness for cooperation, and more mutual confidence.

But past experience also calls for making it clear that if the state organs would be forced too often to make "allowances" to, and agreements with the enterprises it would result in loosening the regulation's normative character, and the exceptions would become the rule. From this aspect, the decisive factor is not the number of agreements but the volume of economic activity the agreements involve. Well, if this volume constitutes a significant part of production, for example, then the agreements become criticisms of the regulation. If the agreements become large-scale, or if it is impossible to implement the consequences of violations, then a justified demand will emerge for reviewing the regulation itself: its methods and scope.

It would not be desirable, therefore, to make a system out of the system of agreements. They should remain the exceptions, they should help and force the enterprises to adapt and the economic management organs to make sensible regulations and to thoroughly examine the enterprises' attitude. The agreements should be signed by at least two parties. At least two parties are responsible for their implementation.

9414
CSO: 2500

NATURAL GAS CONSUMPTION, DEVELOPMENT PLANS DESCRIBED

Budapest ENERGIAGAZDALKODAS in Hungarian No 11, Nov 80 pp 473-475

[Article by Dr. Gyorgy Koranyi, Chief of Main Department of the Ministry of Heavy Industry: "Implementation To Date of the Central Developmental Program of Natural Gas Consumption, and the Sixth Five-Year Plan's Gas Program"^a]

[Text] It is evident to the public that the questions of energy became more and more important factors of our economic development. This was also on the agenda of the MSZMP's 12th congress; the resolutions passed in this regard by the congress are also familiar.

The unavoidable increase in the domestic use of energy, and the use of internal and external energy resources are burdens for our national economy. It is important for us to make these burdens as tolerable as possible.

Gas energy is one of the most available energy resources; the use of our own gas has significantly increased even during the course of the present 5-year plan.

In addition to the traditionally small amounts of natural gas imported from Romania, that imported from the Soviet Union plays an increasing role in meeting domestic demand for energy. The fact that about 27 percent of our total energy requirement is supplied today by natural gas and that part of it is also used in the chemical industry as a raw material, justified our concern about natural gas and becomes an adequate basis for the organization and expansion of the 1980 National Gas Conference.

I want to summarize in my report the results achieved in the Fifth Five-Year Plan regarding the Central Developmental Program of Natural Gas Consumption, and I want to tell you about our preliminary conceptions regarding the developments of the gas industry and gas consumption in the Sixth Five-Year Plan.

I am happy to report that the provisions of the Central Developmental Program for the Fifth Five-Year Plan have been implemented and in some cases have even been exceeded. Regarding the gas industry, the present 5-year plan will come to a successful end at the end of this year.

Research in hydrocarbons was adequate, and significant new gas supplies were discovered.

^aA paper read by the author at the 22nd National Gas Conference in Szeged on 4-6 June 1980.

In the areas where production has already began, we can reckon with a surplus as a result of supply re-evaluations; this will contribute to maintenance of the present level of annual production.

We succeeded in overfulfilling the 5-year plan's quotas of net production of dry natural gas by 10 percent to date.

Our gas imports from the Soviet Union reached 98 percent of the quota, but we will be able to eliminate this insignificant lag by the end of the year.

The situation in domestic sources and underground reservoirs was not as bright; on the other hand, this was counterbalanced by the excessive production of our best plants. There have not yet been any limitations in the course of the 5-year plan.

The structure of gas consumption has been somewhat modified by the end of 1979. Although the price increase of natural gas has not yet shown its effects, industrial gas consumption was less than planned, and private consumption increased. On the other hand, it is not a good sign that gas consumption in our power plants increased significantly.

The production of propane-butane gas was higher than the quotas set by the Central Developmental Program, and there are two reasons for this. First, the ratio of domestic gases which are richer in liquid components has increased and, second, the technological processes of separating liquid fractions have become more intensive.

We have put a great emphasis in the Fifth Five-Year Plan on the expansion of the line network of transport and distribution. According to the quotas, we had to build 600 km of lines between 1976 and 1980. They were completed by the end of 1979.

The increased quota for the expansion of distribution lines was 734 km, 700 km of which was completed by the end of 1979.

These achievements made it possible for us to exceed the quotas of additional supply for the population.

The program's quota for the number of consumers supplied with network-gas was 850,000 for the 5-year plan. This figure has increased nationally however, to 878,000 by the end of 1979, and probably will exceed 900,000 by the end of 1980. The situation was similar regarding the number of propane-butane consumers. Our quotas were set at 2 million consumers by the end of the plan period, but we had more than 2.1 million consumers at the end of 1979, and this figure will probably go up to 2.2 million by the end of this year.

In summary: more than 200,000 households were connected to the network and to propane-butane consumption; these were not included in the program's original quotas.

Alongside all of these achievements, however, we must also mention a few deficiencies. Because the investment projects for underground storages were lagging behind, the storages were not filled to the planned level. There were some problems and deficiencies in the supply of consumer equipment, resulting from more new connections than was planned. (It should be noted, however, that the causes of all of this are outside the gas industry.)

It is noteworthy, on the other hand, that while the annual increase in natural gas sales was more than 11 percent between 1976 and 1978, the energy conservation and pricing measures slowed down this increase to 6 percent in 1979.

The Capital City Gas Works was also active in 1979. It used more than 1.5 billion cubic meters of natural gas. Its urban gas production was above the quota, which is significant because it resulted in valuable additional coke production. Because of the run-down condition of the obsolete pipe network, there were difficulties in the capital city's gas supply. In spite of that, the number of households supplied reached 461,000 through new connections to the gas network; this is 21,000 above the planned quota. True, there is a lag in switching to natural gas, but there was no complaint about gas service in the last year or years. The number of households with gas heat also reached an above-quota level; this is only partly satisfactory, for the increase was achieved not with natural gas, as planned, but mostly to the burden of urban gas capacity.

In summary, we can state that the program was satisfactorily implemented in 1979 and in the respective period of the Fifth Five-Year Plan, and that we will probably be able to carry out (and in some cases, where the economy permits, even outdo) the tasks specified by the government.

I will inform the conference now about the Sixth Five-Year Plan's provisions, although we do not have at present an authorized plan.

In the Sixth Five-Year Plan, in harmony with the general principles of energy use and conservation, we must use the available gas supply more efficiently than before, and must carry out as much development as the national economic plan will allow.

It may be stated that the available and usable gas resources will make it possible to maintain the production level for the entire duration of the Sixth Five-Year Plan, and even after that. This is why we must step up our exploration of hydrocarbons so that our industrial supplies will not dwindle. This is a more and more difficult task facing the researchers of the National Oil and Gas Industry Trust and the Central Geological Office.

A considerable part of the country's area has already been explored. We must drill deeper and deeper, and the resulting higher temperatures present not only technical problems but additional expenses as well.

In our estimate, the ratio of natural gas in the newly explored supplies will probably increase, which is beneficial for the gas industry but not necessarily mean any favorable changes for national energy management.

Production will probably be maintained in the Sixth Five-Year Plan period, and we are not anticipating any difficulties in the efficiency management because of the additional Soviet imports. Incidentally, we can also depend, with assurance, on the capacity of the new natural gas storages.

We reckon with an increase in the ratio of enriched gases in liquid products.

In addition to the familiar pipe constructions, the second phase of section 3 of the Brotherhood gas line will also be completed, which will make it possible to get more imports from the Soviet Union and to transport natural gas from the Soviet Union to

Yugoslavia more efficiently. The construction of the line's new section will contribute to the increased output of the domestic underground gas storages.

In order to meet increased demand, gas transport capacity must be increased during the Sixth Five-Year Plan. We must probably plan to construct 400 km of transition lines and more than 300 km of distribution lines, and to reconstruct 220 to 23 km of high pressure lines. We find it necessary to increase the total length of transition and distribution lines by the end of the coming plan period to more than 6,200 to 6,300 km. Within that, we must complete the construction of the circular line II (for the capital city's supply) and the line which takes inert gas to the Tisza Thermal Plant, and we will probably be able to connect the Hungarian and Czechoslovakian gas networks.

We will also have more propane-butane gas, as I mentioned earlier. More than 1 million tons of propane-butane gas will be an adequate supply in the coming 5 years for individual and communal consumers. It will also be possible to supply 300,000 additional consumers. Our estimate is that the number of propane-butane gas consumers will reach 2.5 million in Hungary by the end of 1985.

The picture of increasing the number of network gas consumers and proliferating gas heating is not as rosy. New connections will probably be made primarily in areas where a gas line already exists; at the most, only a few new residential areas may get gas where there is a high consumption and where the cost of connection does not exceed 20,000 forints per residence. These are basically the principles with regard to the development of the capital city's gas supply, with this comment: because of the demand for coke, it will have to be decided during the next 5-year plan whether urban gas production should be stopped, but even less possibility will exist for increasing urban gas supply than during the present 5-year plan.

By 1985, 88 percent of the potential gas consumers will have gas. Unfortunately, this figure is not much higher in the capital city than 63 percent. The primary reason for this is that a great amount of investments is needed to further improve the technical and safety condition of the capital city's network and to change over to natural gas, e.g., 45 km of pipes must be changed annually, while the length of new lines to be built is a mere 15 km. This is how much we can handle financially, although actually 800 km of lines should be changed in the capital city for reasons of safety and of eliminating losses.

In the capital city, the change from urban gas to natural gas requires an especially great effort. We believed earlier that this process can be completed by 1985. Today we know, partly because of coke import reductions, that we must continue to reckon with urban gas. In spite of this, the change may be planned and implemented in the Sixth Five-Year Plan for about 50,000 consumers. This means that the Capital City Gas Works remains in the coming 5-year plans with the task of changing to natural gas for 168,000 consumers.

It is clear from the things mentioned that the gas industry's officials are facing great tasks in the Sixth Five-Year Plan. The greatest burden will have to be carried by the National Oil and Gas Industry Trust (OKGT) and the Capital City Gas Works. However, these enterprises alone could not implement the developments. It is imperative to further aid and develop the background industries of the gas industry. This is why the heavy industry's portfolio already called the attention of the other portfolios involved that they must give more help to certain areas, whether we want to develop the gas industry with or without a central developmental program.

The OKGT and the Capital City Gas Works are aware of the tasks resulting from the present labor conditions, and have been trying to meet their investment projects' demands for labor through reorganization. But this will not be enough in the 6th 5-year plan. The labor force and construction capacity, which are becoming free as a result of the new investment situation in the construction industry, must also be used at line constructions and in civil engineering in general.

We must also improve the supply in consumer appliances. We are giving as much support as we can for improving the capacity of enterprises which make gas appliances and the number and quality of the appliances. At the same time, we are also trying to increase imports of gas appliances from socialist countries.

The training of gas industrial specialists must be improved, and replacements must be guaranteed. For this reason, the quality and volume of training for engineers and skilled workers must be improved to the desired level; we have the promise, to this effect, of national educational and training authorities.

In a broad outline, these are the conceptions which must be considered in working out the gas industry's Sixth Five-Year Plan. I am confident that the gas industrial conference, just starting, will also contribute to the solution of the coming years' problems and to a realistic Sixth Five-Year Plan that can be implemented. I take this opportunity to thank the Scientific Association for Power Engineering for its activity, and I am certain that, through a mobilization of social forces, it will continue to be able to organize the social support necessary for the development and modernization of our gas industry.

8414

CSO: 2500

PROGRAM FOR UTILIZATION OF ENERGY DESCRIBED

Budapest NEPSZABADSAG in Hungarian 20 Jan 81 p 5

[Article by Judit Kosma: "Our Energy Utilization Program"]

[Text] To use the least amount of energy, to the extent that it can be done economically relying primarily on domestic sources—this is today the highest imperative of the rationalization of energy utilization. This requirement is going to gain strength in the coming years due to the high import costs of purchasing energy and the rapid rise in the costs of energy investments. In practical terms this means that total energy use can increase by 2 percent per year during the Sixth 5-year plan period but by no more than 10-11 percent in 5 years compared to the 3.3 percent yearly average of previous years. Within this, electricity consumption can increase by a yearly average of 3.5 percent instead of the previous average of 4.9 percent. The structure of energy utilization and energy sources must also be improved. In coming years the nuclear power plant at Paks will be operational, electricity imports will be expanding, and the use of domestic coal will be on the upswing. As a result, the ratio of hydrocarbons is going to decrease to 55-60 percent by the end of 1985 from the present 63-64 percent according to the plan.

30 Billion Dollar Investments

All of this is supported by a comprehensive energy utilization program encompassing the whole of the national economy. This program, adopted recently by the Council of Ministers, promotes the moderation of energy use increase by multifaceted technical and organizational measures, by organizational changes, and by more effective incentives. With its realization by 1985 the energy equivalent of 1.5-1.7 million tons of crude oil per year can be saved i.e., 400-500 million dollars even at present prices. This will result in a decrease of the energy demand of the national economy. During the Sixth Five-Year Plan period 0.6-0.7 percent surplus energy use will match a 1 percent increase of the net national production which comes close to the practice of developed industrial countries. In order to put these goals into practice, approximately 30 billion forints will be invested in 5 years, of which almost 15 billion will be used for developments of high importance aimed to improve the structure of energy. Among other things, a cracking plant with a capacity of 1 million tons per year will be built making it possible to produce gasoline and diesel fuel from heavy oil distillates that are burnt at present. Another 100,000-120,000 apartments will be hooked up to

piped gas heating service and the electrification of railroads is progressing on a stretch of about 280 km.

Another 15 billion forints (of which approximately 6.4 billion forints is state subsidy and the rest is bank credit or the development funds of enterprises) will be used for investments whereby the energy demand of production can be reduced, the efficiency of energy-using equipment or technology can be increased, and the exchange of imported fuels for cheaper, easily accessible energy sources can be realized.

In recent years a number of opportunities for so-called energy rationalization investments have been discovered through research. Let us mention just a few important ones.

In ferrous metallurgy the specific coke use of crude iron production can be reduced from the present 677 kg per ton to 587 kg in 5 years among others by improving the quality of iron ore, by reducing its high dust content, and by expanding and modernizing the air-heating park of blast-furnaces. In this manner 240,000 tons of blast furnace coke can be saved. To this end, development is being planned at the Danube Ironworks, the Lenin Metallurgical Works, the Ozd Metallurgical Works, and the Borsod Ore-processing Works.

<u>Make-up of Fuels Used Nationally (in %)</u>	<u>1980</u>	<u>1985</u>
Coal	29	27
Hydrocarbons	64	59
Nuclear energy	0	5
Other (imported electricity, firewood, hydroelectric power, etc.)	7	9
Total	100	100

Numerous Opportunities

Agriculture is a truly rich repository for saving opportunities. A good method is to preserve and use plant fodder without drying e.g., wet storage and feeding of 2-3 million tons of corn can save the energy equivalent of 100,000 tons of oil.

"Let's not heat the streets," this oft repeated, old demand also plays a part in our energy conservation program. Communal energy consumption is more than one quarter of total consumption of which heating places very high.

In order to reduce energy used for this purpose, the efficiency of heating equipment and the heat insulation of apartments have to be improved, and heating and hot-water use have to be regulated, metered, and billed accordingly as much as possible.

What shall we use for heating and what kind of fuel should be used? Of course, this question is justified not only in the case of apartment buildings. In cement plants more than 100,000 tons of heating oil and 70 million cubic meters of natural gas can be replaced by coal. Geothermal energy can also supplant valuable

energy sources. Its use is especially promising in housing, in plastic foil tents, and greenhouses. All sorts of agricultural waste can also be used for heating in a much larger measure than before whereby an energy equivalent to 300,000 tons of oil could be saved by investing about 4.5 billion forints.

Of course, a very important precondition for the realization of the aforementioned tasks is to expand production or import of necessary materials, machines, equipment, and instruments or in some cases to get underway. For instance, there is need for tightly closing doors and windows, valves to regulate radiators, energy-saving heating, boiling, and water-heating devices, heat-storing stoves, coal- or waste-burning equipment and insulation materials. In addition, an appropriate maintenance network both for the population and industry is needed. That is why this program pays a great deal of attention to the industrial background of energy saving by encouraging production development and giving material support to the most efficient solutions.

A Question of Attitudes

In addition to the aforementioned examples, the opportunities for energy rationalization could be enumerated ad infinitum. But even though their exploitation is very promising, the popularization of saving energy cannot be based only on development. Although it is true that the last 2 years have brought good results, wastefulness has not stopped everywhere. Quite a few enterprises have not given an exact account of their losses, the supervision of their technology, regular maintenance and instrumentation of their energy-saving equipment, and the improvement of their efficiency. Many a new plant or technological reconstruction has been realized without enforcing the requirement for energy conservation, thereby constantly renewing, instead of ending, the technological and organizational "conditions" leading to waste. This is not necessarily a question of money but at least equally that of attitude.

There is still a lot to do in order to change our attitude concerning energy. Of course, it would be difficult to organize these agenda into a program, for changing a way of thinking is very complicated; it is a far more difficult undertaking than effecting concrete, tangible technological or organizational alterations. Nevertheless, if we want the nation to use less energy, we have to devote more energy for the propagation of the attitude that regards rational utilization of energy a natural part of everyday work and life instead viewing it as a campaign task. This "investment" will benefit not only the realization of our long-term program but it will also yield high returns in all other areas of our economy.

9133
CSO: 2500

TRANSPORT ENTERPRISES 1981 PLAN EXAMINED

Budapest KOZLEKEDESI KOZLONY in Hungarian No 49, 7 Dec 80 pp 841-845

[Article by Dr Rezső Bajusz, head of Main Department of Economic Planning, Ministry of Transportation and Postal Affairs: "1981 Plan of Transport Enterprises in Preparation"]

[Text] As in 1980, planning for the transportation tasks expected for 1981, and the resources and expected output levels needed to accomplish these tasks, presented a difficult problem for national economic planning organizations, including the planning personnel at the Ministry of Transportation and Postal Affairs and its enterprises.

The relationship between real social and economic processes and transportation has changed a great deal as a result of a stricter system of requirements and conditions formulated and implemented in a coordinated manner during 1979 in the interests of improving the balance situation of the national economy. Recognition of this changing relationship was made more difficult by the introduction of the new system of prices and regulators on 1 January 1980 which had a substantial influence on the behavior of productive, stockpiling and marketing enterprises. When setting output levels for transportation in 1980, it was clearly impossible to foresee the effects of another round of producer price changes in the first quarter, unpredictable weather and the shortfalls relative to the 1980 national economic plan.

It is necessary to deal with these topics at least briefly because without a systematic attempt to discover the effective mechanism of various types of changes in the development of the economy we might end up with results in the area of implementing transport plans and efficient operations that are substantially different from those expected to ensue from transport policy measures.

In terms of quantities, transportation will completely satisfy all passenger and freight transport requirements in 1980. This year is the first period in a long time when transportation had a substantial amount of excess capacity for most of the year. Occasional railroad car shortages in rail transport were almost entirely due to troubles within the rail systems of neighboring countries. In spite of quantitative fulfillment of requirements, there is a shortfall relative to the national economic plan and enterprise targets both in passenger and rail transport.

Fulfillment of the passenger transport plans was greatly influenced by the continued decline of working-age population within the socialist sector, the downturn in tourism relative to 1979 and the shortfall in real per capita incomes and wages relative to the plan. The use of privately owned means of transportation was affected by the emerging changes in the structure of family spending. For the whole of the Fifth Five-Year Plan period (including the effects of the 1980 shortfall) every 1 percent growth in the national income was accompanied by a 1.12 percent rise in passenger transportation; in 1980 we foresee a 1 percent growth in national income with a 0.968 percent growth in passenger transportation volume.

Although the expected values figuring in Table 1 may still be modified, we are in a position to state that neither the central planning authorities nor transport enterprises expected those measures to affect matters on such a scale.

Structural changes affecting various means of transport were also accelerated by measures taken on the national economic scale. The unbroken decline in rail transport volume seems to have come to a halt while the rate of growth of inter-city bus traffic continues to decline. The volume of other types of road passenger transportation has declined in 1980; the rate of growth in this area is expected to be less dynamic.

The quality of passenger transport shows an improving trend in 1980 due to the fact that vehicle purchases will be almost up to planned levels.

The shortfall relative to the freight transport plan (except for maritime shipping and pipeline transport) is closely related to plan fulfillment problems in other sectors of the national economy. An examination of expected plan fulfillment levels in freight transportation shows that in 1980 every 1 percent growth in national income was accompanied by 0.977 percent growth in output while, for the whole of the Fifth Five-Year Plan, every 1 percent increase in the national income implied 1.022 percent growth in freight transport volume.

The shortfall relative to the freight transportation plan was influenced by a number of factors: industrial output remained essentially at the 1979 level, agricultural production merely approximated planned levels, construction volume declined in accordance with the plan, both net and gross accumulation declined much more rapidly than planned (relative to last year) and the volume of foreign trade is also below plan.

Larger than planned phase differences regularly experienced in the past between rail and road freight transportation (Table 2) have declined. Still, we were unable to achieve substantive results in our effort to shift some goods, at present uneconomically transported over large distances on public roads, back to rail transportation within the framework of the 1980 enterprise plans. It is a positive fact that the decline in the output of public transport enterprises will be less than that of public institutions.

The growth of mechanized loading and unloading has slowed in 1980 relative to past years. The annual goal of shifting the traffic of underutilized rail lines to roads will be only partially met. Among the reasons for the lag we find declining investments, stricter economic regulations and the suspension of the

Table 1. Passenger Transportation Volumes

(1) Magyarország	(2) 1980. évr.	1980. várható (3)	1981. évr. (4)	Index (5)	
				1980. várh. 1980. évr. (6)	1981 1980 (7)
(8) Helyi tömegközlekedés					
(9) Vasúti közl.	13 830	13 600	13 600	100,6	100,0
(10) Autóbusz közl.	14 060	13 680	14 060	97,3	102,9
(11) Víz közl.	70	68	68	92,8	101,5
(12) Légi közl.	1 100	1 135	1 184	103,1	104,3
(13) Távoli légi tömegközlekedés					
(14) Összesen	28 780	28 480	28 900	98,0	101,6
(15) Helyi tömegközlekedés					
(16) Budapesti tömegközlekedés					
Összesen	8 800	8 830	8 840	100,3	100,1
(17) ebből: kötöttpályás közl.	4 710	4 700	4 750	99,8	101,1
(18) autóbusz közl.	4 090	4 130	4 090	100,9	99,0
(19) Vidéki tömegközlekedés	4 480	4 530	4 780	101,8	106,3
(20) ebből: 64 nagyváros önm.	2 360	2 400	2 510	102,1	104,6
(21) e: kötöttpályás közl.	800	800	830	100,0	105,0
(22) tanácsai autóbusz	880	880	900	103,6	102,3
(23) VOLÁN autóbusz	1 100	1 120	1 190	101,8	106,3
(24) Egyéb vidéki városok önm.	2 100	2 130	2 250	100,0	106,1
(25) e: VOLÁN autóbusz	2 096	2 110	2 240	100,7	106,2
(26) Helyi tömegközlekedés önm.	13 000	13 280	13 600	102,7	101,9
(27) Tömegközlekedés összesen	43 000	41 800	43 800	99,5	101,7
(28) Egyéb közúti önm. közl. önm.	60 000	58 000	60 100	96,7	103,6
(29) e: Személygépk. önm.	41 680	41 400	43 750	99,3	105,7
(30) Motorbarkácsolás	7 300	7 300	7 300	100,0	98,6
(31) Közfutó autóbusz	11 000	9 300	9 150	84,5	98,4
(32) Személygépk. közl.	102 000	99 800	102 600	97,8	102,8
(33) e: Kötöttpályás közl.	18 680	18 700	18 770	100,3	100,4
(34) Körúti közl.	32 188	29 880	32 880	97,3	103,4
(35) Egyéb közl.	1 188	1 220	1 270	102,9	113,4

Key:

- | | |
|------------------------------------|--|
| 1. Category | 19. Provincial mass transport |
| 2. 1980, planned | 20. of this: 5 large cities, total |
| 3. 1980, estimated | 21. of this, fixed route transport |
| 4. 1981, planned | 22. buses operated by local councils |
| 5. Index | 23. VOLAN buses |
| 6. 1980 estimate/1980 plan | 24. Other provincial towns, total |
| 7. 1981/1980 | 25. of this, VOLAN buses |
| 8. Local mass transportation | 26. Local mass transportation, total |
| 9. Rail transport | 27. Mass transportation, total |
| 10. Bus transport | 28. Other road passenger transportation, total |
| 11. Boat transport | 29. of this, all passenger cars |
| 12. Air transport | 30. motorcycles |
| 13. Long distance mass transport | 31. buses operated by public organizations |
| 14. Total | 32. Passenger transportation, total |
| 15. Local mass transport | 33. of this, fixed route transport |
| 16. Budapest mass transport, total | 34. road transportation |
| 17. of this: fixed route | 35. other transportation |
| 18. bus transport | |

operations of the Loading Development Fund and the Transportation Policy Fund. The loss of incentive caused by these developments could not be compensated by business and tariff policies of transport enterprises.

The workforce management of transportation enterprises is showing continued improvement. Average 1980 employment levels are below those of 1979. Rail and road transport enterprises are achieving especially substantial manpower reductions.

A substantial portion of investment projects is being implemented. The following major development projects deserve to be mentioned: 330 km of rail lines are being modernized, automated line safety equipment is being installed over 146 km of track and 3,800 trucks are being purchased. In the area of road transportation, 121,000 passenger cars are being purchased, 1,900 buses are introduced to help in implementing the reconstruction program and accomplish excess tasks. Eighty percent of the 19,600 trucks purchased are intended to replace worn-out stocks. Twenty-one km of expressway is being built, 45 km of road is being modernized and 1,000 km of road surface is going to be strengthened or widened within the framework of the development of the public road network.

Within the road network under the jurisdiction of local councils, 576 km of road surface will be strengthened or widened. Improvement of urban mass transportation will be facilitated by a 4.7 km expansion of the rapid transit network, a 12 km expansion of the trolley network, a 10 km increase in the bus network as well as the purchase of 40 subway cars and 286 buses.

As a result of new development projects, there has been continued improvement in social amenities and the working conditions of employees: this is an important accomplishment.

In the national economic sector consisting of transportation and telecommunications, the value of operating fixed assets has expanded by 25.8 billion forints. By the end of the year, it will reach 432 billion forints, representing 23.7 percent of the gross value of fixed assets in all material sectors.

In conclusion, we need to discuss the expected operational results of transportation enterprises.

As Table 3 shows, in spite of the underfulfillment of transport plans, the plan for gross production value including both base and auxiliary activities will be overfulfilled. The profit plan will also be overfulfilled: 1980 profits are expected to be approximately 16 billion forints.

The rather good fulfillment of the plan was facilitated by strict cost management, utilization of opportunities offered by expanded auxiliary activities, a few justified exemptions within the regulatory system and constantly improving price and exchange rate policies. As a result, the self-financing capability of transport enterprises and the quality of management have improved. Suitable conditions have been created to provide the foundations for a transition to 1981 operations.

Table 2. Freight Transportation Volumes (in million ton kilometers)

	Megnevezés (1)	1980. terv (2)	1980- várható (3)	1981. terv (4)	Index (5)	
					1980. várh. (6) 1980. terv	1981 (7) 1980
(8)	Vasúti közl.	28 500	34 800	35 000	97,3	100,8
(9)	Közművi közl.	12 700	11 900	12 160	93,7	102,1
(10)	e: közl. vállalatok	8 480	8 300	8 480	97,7	102,4
(11)	egyéb váll. és intézmények	4 220	3 600	3 700	89,8	101,8
(12)	Belsővízi hajózás	3 180	1 987	1 994	91,5	101,4
(13)	e: közl. vállalatok	1 080	1 747	1 774	90,8	101,8
(14)	egyéb váll. és intézmények	220	220	220	100,0	100,0
(15)	Légi közl.	40	22	28	82,6	100,1
(16)	Csatornázás csatl.	4 310	4 400	4 680	102,1	102,7
(17)	e: közl. vállalatok	3 830	3 900	4 010	101,3	102,8
(18)	egyéb váll. és intézmények	480	500	670	108,7	102,0
(19)	Árumozatás tengeri hajózás vállal.	44 700	43 100	43 700	96,4	101,4
(20)	e: belf. forgalom	25 080	23 820	24 010	96,1	100,8
(21)	import forgalom	8 680	8 625	8 710	99,9	100,9
(22)	export forgalom	4 080	3 480	3 610	88,4	101,4
(23)	transit forgalom	6 980	7 185	7 470	103,4	104,0
(24)	Tengeri hajózás	4 700	5 180	5 330	109,6	101,9
(25)	Árumozatás más módon	49 400	48 280	48 930	97,7	101,8
(26)	e: közl. vállalatok	42 470	41 920	42 820	98,7	101,4
(27)	egyéb váll. és intézmények	6 930	6 320	6 430	91,2	101,7

Key:

1. Category
2. 1980 plan
3. 1980 estimate
4. 1981 plan
5. Index
6. 1980 estimate/1980 plan
7. 1981/1980
8. Rail transportation
9. Road transportation
10. of this: transportation enterprises
11. other enterprises and institutions
12. Inland water transportation
13. of this: transportation enterprises
14. other enterprises and institutions
15. Air transport
16. Pipeline transport
17. of this: transport enterprises
18. other enterprises and institutions
19. Freight transportation excluding maritime shipping
20. of this: domestic shipments
21. import shipments
22. export shipments
23. transit shipments
24. Maritime shipping
25. Freight transportation, grand total
26. of this: transportation enterprises
27. other enterprises and institutions

Table 3

Magnevénis (1)	1980. érv (2)	1980. várható (3)	1981. érv (4)	Index (5)	
				1980. várh. (6)	1981 (7)
				1980. érv	1980
(8) Alapvető tevékenység	84,8	85,5	94,0	101,1	100,9
(9) ebből: áruszáll.	42,8	42,8	47,9	99,8	112,7
(10) személyszáll.	27,9	28,7	30,0	102,9	104,5
(11) Posta	8,7	9,0	10,4	102,4	116,6
(12) egyéb alapvető tevékenység	4,3	8,3	8,7	117,8	107,8
(13) Alapvető tevékenységen kívüli tevékenység összesen	12,8	12,8	12,8	104,1	107,8
(14) ebből: ipari tev.	2,4	2,7	2,9	112,5	107,4
(15) építőipari tev.	7,4	7,9	8,5	106,8	107,5
(16) egyéb tev.	2,4	2,2	2,4	91,7	109,1
(17) Bruttó termelési érték összesen	98,8	98,3	107,8	101,5	109,7
(18) ebből: vállalatok és vállalkozások	92,3	94,7	104,0	101,5	109,8
(19) költségvetési intézm.	3,0	3,0	2,2	100,0	100,7
(20) lakosság kisüzemi tevékenys.	0,5	0,6	0,6	120,0	100,0

Key:

- | | |
|------------------------------------|--|
| 1. Category | 12. Other basic activities |
| 2. 1980 plan | 13. Activities other than basic activities, total |
| 3. 1980 estimate | 14. of this: industrial activities |
| 4. 1981 plan | 15. construction activities |
| 5. Index | 16. other activities |
| 6. 1980 estimate/1980 plan | 17. Gross production value, total |
| 7. 1981/1980 | 18. of this, enterprises and cooperatives |
| 8. Basic activities | 19. institutions financed by the state budget |
| 9. of this: freight transportation | 20. small scale operations by the general population |
| 10. passenger transportation | |
| 11. Postal Service | |

In formulating the 1981 transportation plan, we started from the position that the chief task in 1981 will be the continuation of the economic policy begun in 1979 and continued in 1980. In particular, the foreign trade balance of the national economy must be strengthened primarily through improved efficiency and export ability combined with better quality. Preservation of living standards is an important goal. The assumption is that conditions in international economic relations will continue to become more difficult. Structural transformation of domestic production will continue. Economic regulators will become even stricter.

We also tried to draw lessons from the fulfillment of the 1980 plan and consider the effects on transportation of constantly changing and emerging social and economic processes in the course of our economic planning for the transportation field.

In formulating transportation and volume plans we assumed that, at constant prices, national income will grow by 2 to 2.5 percent relative to 1980; domestic utilization will be 0.5 to 1 percent lower than in 1980; the gross production value in

industry will grow by about 3 to 3.5 percent; the value of domestic construction and assembly will be 1 percent lower than in 1980; gross agricultural production value will grow by 3 to 3.5 percent; and in direct foreign trade, exports will grow by 7.5 to 8 percent while imports increase 2 to 2.5 percent.

The investments of the socialist sector will increase by about 6 percent; in particular, net accumulation of fixed assets will decline by approximately 12 to 13 percent and inventories will increase by about 5 percent.

To preserve and slightly improve the living standards of the population, per capita real income will increase by 1 percent while consumption will go up 1.5 percent.

Beyond synthetic indicators supplying an aggregate picture of the expected development of the national economy, our projections also included the effects of measures taken to correct the regulatory system in 1980. We expect these to contribute to improved efficiency, regularity of economic processes and compliance with quality requirements. Measures taken in the past or expected to be taken in the future in order to modernize the system of direction are likely to have a similar effect.

The exceptionally wide-ranging conservation measures aimed at energy, material, scrap and secondary material savings, etc. are expected to lead to further reductions in transportation demand per unit output.

The transportation aspects of the national economic plan have been formulated on the basis of the needs and opportunities related to the 1981 development of the national economy as well as the pointers defined in the transportation policy guidelines.

In the area of projected passenger transportation volumes the primary aim remains the development of mass transportation. Quality of service may be improved only in certain areas (e.g., the addition of Phase 2 of the North-South subway line). We assume that the volume of daily commuting to and from work will remain essentially unchanged; in the sphere of other types of travel, growth is expected to be slow. The number of private passenger cars is expected to increase but mileage per passenger car is expected to decline as a result of higher costs of operation.

Passenger transportation volume per 1 percent increase in the national income stands at 1.003 percent. This is higher than the low point reached in 1980 but is substantially below the average value for the Fifth Five-Year Plan period. This trend is explained by the projected development of tourism, the movement of manpower related to structural transformation and the slight increase in real incomes.

Within the almost 3 percent rise in passenger transportation volume, above average development is projected in air travel, transportation within provincial towns and the projected development in the area of passenger car transportation (see Table 1).

Basically, we expect earlier trends to continue in the division of labor within transportation (individual vs. mass transportation, fixed route vs. road transport). Structural shifts in the area of the division of labor are expected to slow down as a result of conscious transportation policy measures.

Rational manpower management and gradual cutbacks of unneeded, parallel routes are expected to lead to improved division of labor and declining volume of transportation using publicly owned buses in the sphere of public or publicly owned bus transportation.

Freight transportation volumes were set on the basis of administrative directives calling for a slowdown of the rapid shift from rail to road transport in view of the favorable energy and labor intensity indicators of rail transport. The objective was to ensure that Hungarian transportation is able to satisfy quantitative tasks while it is gradually adapting to transportation market demands and demonstrates efficiency and better quality in satisfying demand.

In accordance with past trends, as shown in Table 2, we plan to expand public transportation volume more rapidly than transportation by public institutions. The output of enterprises engaged in so-called currency producing or currency saving activities and the volume of rail transit will be increased at an above average rate in view of the objectives related to an improved international balance of payments. The small increase in domestic traffic is caused by the planned slowdown of the domestic utilization of national income, further restrictions on investment and planned expansion of output.

A 1 percent increase in the national income will continue to be accompanied by a less than 1 percent rise in freight transport volume: this must be considered in a positive light.

Considering that in 1980 a substantial number of transportation enterprises have unused capacities for a large part of the year, in 1981 we expect stronger competition in the freight transportation market (in spite of a decline in transportation enterprise investment in 1981); as a result, customers may expect better quality, more efficient fulfillment of their needs.

Just as in other sectors of the national economy, transportation objectives had to be accomplished completely, efficiently and with improved quality, as described above, without a corresponding increase in investment resources in proportion to the increased tasks. The volume of transportation investments calculated at current prices will be approximately 89 to 90 percent of the 1980 level. A strict order of priorities must be followed in the utilization of the almost 22 billion forint investment opportunity, its distribution among transportation sectors and the definition of development objectives, in line with transportation policy goals and the government's investment policy.

Development resources were concentrated primarily on completion of investment projects already begun. These include completion of the portion of the North-South subway line up to the Elműkas station, continuation of the reconstruction of the Arpad bridge, construction of the Ferihegy airport and the M1, M3 expressways, reconstruction of the main rail line network, development of the

Zahony transloading district and the Kelenfold Railroad Station in Budapest, etc. Almost all vehicle purchases are intended to replace worn-out equipment.

A brief list of the most important natural indicators of development is sufficient to show that quite substantial development projects could be scheduled in spite of reduced funds. Thus, for example, in rail transportation 250 kilometers of track will be modernized, 175 railroad passenger cars will be purchased and the proportion of modernized locomotives will reach 96 percent. Development of road transportation will be facilitated by the purchase of 115,000 passenger cars, 1,300 buses and 19,000 trucks. One thousand three hundred kilometers of road surface will be strengthened, widened or modernized to improve the traffic carrying capacity of the state and council road network.

Urban transportation is helped by the purchase of 263 buses and 50 subway cars. The aircraft fleet of MALEV [Hungarian Airlines] will expand through the addition of 2 TU-134 and 2 TU-153 airplanes. Although it is as yet impossible to calculate them in numeric terms, the investment opportunities open to the transportation sector are likely to increase as a result of investments at the enterprise level leading to an improved capitalist balance of payments. Enterprises have already formulated their applications to obtain the necessary investment funding.

As a result of 1981 development projects we can expect the gross value of operating fixed assets within the transportation and telecommunication sector to increase by 16.5 billion forints (including telecommunications) and to reach almost 450 billion forints by the end of 1981.

One of our most important objectives is to utilize this enormous collection of assets in an organized manner.

The average number of employees in the telecommunications sector will remain essentially unchanged; thus, most of the additional output must come from improved labor efficiency. The manpower management objective is to gradually fill up employment levels in areas where long-term shortages exist (brakemen, couplers, freight handlers, etc.), reduce overtime while reducing and transferring manpower freed as a result of organization and reduced administration. Another important objective, along with preparations toward the transition to a 5-day work week, is the preservation of the present utilization of transport capacities combined with the transformation and rationalization of the work schedules of transport workers.

The objective in the area of social amenities is to provide opportunities approaching the favorable rate of development achieved during the Fifth Five-Year Plan. To accomplish these goals, enterprises should implement their development ideas within the framework of joint investment and operation.

Transport enterprises were hard hit by the correction of economic regulators and the extension of normative criteria.

Beyond normative regulations, road transportation enterprises must pay a one-time budget contribution in 1981 equivalent to 20 percent of their annual depreciation: this will reduce their investment funds by almost 750 million forints. This means that in the interest of efficient operations they must organize to discover their

reserves, free relative capacities through organizational development, institute strict cost management and achieve rational, general savings encompassing all production factors.

By organized increases in output, a 3 percent rise in freight transportation charges and an average 2.5 percent rise in free-price passenger transportation charges, we can bring the gross production value of the transportation/telecommunications sector near 108 billion forints (as shown in Table 3) and profits to over 20 billion forints compared to a 16 billion forint profit in 1980. In this case, both the compensation fund and the development fund of the profit sector will be larger than those calculated on the basis of 1980 results.

A great number of measures formulated or being formulated on the ministry level will contribute to the implementation of the 1981 economic plan of the transportation sector. These measures facilitate the practical implementation of the administrative work program aimed at the execution of the reformulated transportation policy guidelines.

For example, the leadership of the ministry took a position and decided to take steps related to passenger and freight transportation by public institutions. Measures were formulated to coordinate urban, suburban and regional mass transit. Measures aimed at the introduction of coordinated, modern freight transportation processes have been formulated and will be presented for cabinet approval at the beginning of 1981. Formulation of the competitive system for expanding the utilization of the Loading Development Fund and compliance with new requirements is in progress. Further development of freight transportation planning and the internal mechanism of transportation enterprises and the creation of conditions necessary for more rational operation of certain organizations are on the agenda.

The 1981 plan objectives of transportation seem realistic and can be fully realized. However, efforts by transport workers and managers are in themselves insufficient. These objectives can be reached only through close cooperation with customers and users of transportation. Objectives related to the division of labor require that shippers and passengers be influenced to use more efficient means of transportation. In the area of coordinated freight transportation processes, the least difficult problem is to coordinate the technological processes of the various transport enterprises; the decisive task is to improve the structure of relations among production, distribution, storage and transportation.

Our partners who are familiar with transportation will certainly help us to accomplish our goals as soon as they become aware of our objectives and the opportunities open to us.

9164

CSO: 2500

REGULATORS LEAD TO CHANGED WAGE SYSTEM

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 49, 3 Dec 80 p 7

[Article by Dr Andras Kirilly, head of the Economic Department of the Red Star Cooperative, Barcs: "Development of the Income Distribution System"]

[Text] Changes in the system of economic regulators have resulted in a substantial modification of the relationship between the two most important components of the income of cooperative farm members and employees: wages paid during the year and end-of-year profit sharing.

In earlier years, wages during the year represented 75 to 80 percent of personal income while end-of-year profit sharing accounted for 20 to 25 percent. Beginning in 1980, the share of wages paid during the year rose to 90-93 percent of the income of employees while year-end profit sharing declined to 7-10 percent depending on profits. This, combined with increased precision of planning and further development of incentives related to results made it necessary to introduce changes in the income distribution system.

Introduction of Target Bonuses

One of the most important principles of this development was to ensure that workers and working groups performing better than average are given a greater share of the income produced during the year. To this end, we introduced a system of differentiated remuneration in the distribution of wages during the year and the payment of year-end profit sharing.

The wage bill, obtained as the product of wage levels set on the basis of legal provisions applicable to cooperative farms and the average number of employees was divided into 2 main groups. The first is the sum intended to cover direct wages paid to workers on the basis of their job function or predefined performance in the form of monthly or hourly wages or piece rate. On the other hand, members and employees may receive a certain percentage of the total wage bill in the form of so-called target bonuses.

Such target bonuses are intended to ensure that the members of work organizations perform tasks considered important by the leadership of the cooperative ahead of schedule with high quality work. The wage funds set aside for target objectives

are defined ahead of time, in the course of planning, by the managers of organizational units. Thereafter, these funds are projected by the appropriate managers down to the units reporting to them. Managers authorized to use target bonuses will use available funds with a view toward the interests of the cooperative on a proportional schedule, according to their discretion.

Another advantage of this wage system is that it can be used to provide instant evaluation of the performance of members or employees.

The New System of Profit Sharing Distribution

The decline in the proportion of year-end profit sharing begun in 1980 has also made it necessary to transform the distribution of profit sharing based on results.

In the new distribution system, the year-end share of autonomous organizational units depends on the fulfillment of the profit plan defined and accepted within the framework of the annual plan. To this end, we created 7 main branches with independent accounting and separate profit plan and 2 main branches with a separate cost plan. At the same time, every member and employee was attached to one of the branches with independent accounting. Calculation of the year-end profit sharing is based on the combined sum of wages, differentiated bonuses and awards for the entire cooperative paid after work performed for the cooperative during the year. Following the calculation of the total sum available for profit sharing payments, the basis for its distribution is calculated as the product of wages paid during the year and the percentage of plan fulfillment.

The procedure is illustrated by the following short example. Assume that the sum of wages paid during the year is 50 million forints. The fulfillment of profit plans and the base for calculating year-end profit sharing are shown in Table 1.

The sums available for year-end profit sharing in units with independent accounting may be found in Table 2.

According to our preliminary calculations, in this system there may be substantial differences in the year-end profit sharing received by workers employed in different units with independent accounting, depending on plan fulfillment. In our opinion, this will provide adequate incentives for members and employees to fulfill or over-fulfill plan objectives.

To enable managers of units with independent accounting to obtain up-to-date information on plan fulfillment we have restructured the information system within the cooperative. Managers will receive regular data on a monthly basis regarding price receipts costs of their units.

We are as yet unable to describe the experience of the income distribution system sketched above; however, on the basis of preliminary opinions we trust that this income distribution system will provide incentives for members and employees of the cooperative to work even better than in the past.

Table 1

Units with independent accounting	Percentage of plan fulfillment (1)	Wages during the year (2)	Basis for year-end profit sharing 1 X 2 (1000 forints)
1	110.0	15,300	16,830
2	111.1	6,002	6,668
3	116.7	2,301	2,685
4	80.0	4,813	3,850
5	112.5	2,050	2,306
6	107.7	1,502	1,618
7	102.4	6,271	6,422
8	52.5	800	420
9	88.1	6,961	6,133
10 Total	102.0	46,000	46,932
11 Central management & other activities	102.0	4,000	4,081
12 Cooperative, total	102.2	50,000	51,013

Percentage of year-end profit sharing distribution = (share funds on the cooperative level) / (total wage bill used as the basis for year-end profit sharing) = 4,200,000 / 51,013,000 = 8.23 percent

Note: In lines 11 and 12, year-end profit sharing base means the percentage obtained as the ratio between the third and second column of line 10 and the product of the second column of lines 11 and 12.

Table 2

Independent accounting units	Year-end profit sharing fund for indepen- dent accounting units (1000 forints)	Percentage of year-end profit sharing relative to wages during the year
1	1,385	9.0
2	549	9.1
3	221	9.1
4	317	9.1
5	190	6.5
6	133	9.2
7	528	8.3
8	34	4.2
9	505	7.2
10 Total	3,862	8.4
11 Central management, other activities	338	8.4
12 Cooperative, total	4,200	8.4

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CS0: 2500

NEW AGRICULTURAL CREDIT POLICY DISCUSSED

Budapest FIGYELO in Hungarian 26 Nov 80 p 15

[Report by Jozsef Kovacs and Dr Laszlo Szakonyi: "Instead of Subsidies"]

[Text] Credit is becoming more and more important as a source of investments for large agricultural enterprises. While, for example, investment credit played a secondary role in the first years of the 1963 economic management reform (including the high--often 70 percent--state subsidies), its significance gradually increased in the following years when subsidies were gradually decreased.

The reason is that the farms were practically able to make an automatic use of subsidies for investments related to goals encouraged by the central management--with the exception of a few applications. Since subsidies usually ran dry before credit did, the planned investment projects were not implemented in spite of credit or internal development funds still available. Investment credits thus could not fill their economic function; they served instead as simple supplementary resources. Because of their relatively small proportion to the value of the investments, credits had no, or very little, practical effect on enterprise decisions.

Although there are still significant state subsidies for agricultural investments, they have been decreased lately. Because of its "free money" characteristic, subsidy necessarily requires less profits to begin with. This is why we can dare say that the automatic investment subsidy system, given primarily to farms with a strong capital and fast reaction [demand meeting], did not adequately encourage higher efficiency. The state subsidy system functioned more or less well in construction investments (which have a much slower rate of return than mechanization) as long as it satisfied the justified demands of the enterprises. The trouble began when, because of the well-known situation in budgeting, the various agricultural budgets, among other things, had to be limited; this led to the suspension of issuing subsidy documents, i.e., to a partial or total "stop" in investment subsidies.

Despite all this, we should not blame the automatic investment subsidy, for it played an important role in creating fixed assets for large-scale production.

There have also been some conceptions regarding the decrease in budget grants. This was supposed to be achieved through the introduction of wide competition. However, because of the slight differences in individual establishments and solu-

tions within the investment goals, the evaluation of the proposals would have necessarily been made on the basis of subjective elements.

In the last 12 years, the percentage of the enterprises' own investment resources increased from 41 to 60 percent. Extended possibilities for credit (e.g., preferential interests), in addition to decreasing demand for subsidies, also lead to a decrease in the enterprises' own developmental resources both indirectly (additional interests) and directly (repaying additional credit). Thus we must be careful in decreasing subsidies, for it may result in such financial burdens for the enterprises that it would make it impossible for them to make payments and to acquire credit.

With reference to subsidies for construction investments, the basic objective of the regulating system's present modification was to improve their system which has not worked well in recent years.

Based on the gradual decrease in subsidies and, of course, also in the interest of relieving the burdens of budgets, the subsidy for construction investments (with the exception of dairy-farming and pig-farming) will be substituted by credit; thus for all developmental programs which were subsidized up until now, long-term credit may be given in the future with reduced interests according to the objectives. (This involves about one-third of the investments.)

It is clear that this way the subsidy for construction investments is not halted completely, for reduced interests and long-term credits mean, if only indirectly, a kind of subsidy. Getting credit is made easier by the fact that cooperatives, like state farms, may consider amortization as part of the standard developmental funds, or as collateral.

If we consider that a maximum of 70 percent of investment expenses may be financed by special-interest credit, the change in the subsidy system is perhaps not so bad. (It cannot be compared, of course, with the 70 percent state subsidy of 10 years ago.)

The increasing role of credit is also manifest in a change in priorities in agricultural production. While the food supply for the population was the most important consideration earlier, today the goal is primarily to increase exports because of the development of agricultural production and labor. Since present production satisfies domestic demand, excess quantities may be exported, but only if the new investments result in competitive products. Under the given price system, this may be implemented, among other things, by decreasing financial support and by a better use of the farms' own resources.

In addition to reduced interests, other elements of preference must also be used to help developments which promise economical solutions. The main point here is loan maturity and the level of contribution from own resources.

It is a mistaken attitude, for example, when unbeneficial natural conditions at investments are recognized through less self-contribution. For it is unequivocally the state's responsibility to make compensations for unbeneficial natural conditions.

A differentiated moderation of self-contribution may be conceived at investments which may easily be converted and put into production in a short time and which can rapidly follow and utilize the changing possibilities of the world market; which are suitable for the utilization of the potentials of farms with little capital etc. We must call attention again to the fact that the differentiation of self-contribution needed for investments may be a good means of selection, but if the evaluation of credit applications is not consistent enough, then the investments may lead to large debts and the "weakness" of the requirement system may elicit further unjustified demands.

In setting the date of loan maturity, the profitability of the developments should be the primary consideration, i.e., more profitable investments should get less, and less profitable more, time for repayment. In order to increase the "turn-over" speed of credit assets, however, a general incentive for faster repayments would also be conceivable.

Credit will no doubt play a more active role in agricultural investments in the Sixth-Five-Year Plan, probably resulting in other advantages as well. E.g., a differentiated credit system, which has consideration for the location of the farm, which is based on the area's potentials and which affects the production structure, may ease the allocation problems in the investment resources.

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CSO: 2500

RESULTS OF WHEAT PURCHASE BY GRADE NOTED

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 49, 3 Dec 80 pp 7

[Text] Purchase of the 1980 cereal crops involved a new task in that wheat was purchased by the Grain Marketing and Milling Industry Enterprises in 3 separate quality categories, in accordance with the price decree and the new standards: high (special) quality wheat, regular milling wheat and fodder wheat.

Milling industry enterprises signed crop purchase contracts with agricultural units to provide for purchase targets. Wheat classified as high quality wheat on the basis of variety represented 2,040,000 tons of all contracted crops. Farms received technological recommendations regarding production and product handling approved by the National Agricultural Variety Experimental Institute and other research institutes involved in the production and preservation of varieties when they signed contracts for high quality wheat. The distribution of acreage under wheat at harvest time has changed relative to the past. While wheat for human consumption was grown on 71 percent of all fields in 1978 and 76 percent in 1979, in 1980 the proportion rose to 81 percent. In particular, 56 percent of this year's acreage had high quality wheat and milling wheat was sown in 25 percent. Especially large quantities of wheat for human consumption were sown in Komarom, Vas, Pest, Fejer, Szabolcs-Szatmar, Borsod-Abaúj-Zemplen, Zala, Tolna, Győr-Sopron and Hajdu-Bihar megyes. Csongrad, Baranya, Somogy and Szolnok megyes grew above average quantities of fodder wheat.

1,750 Inspection Stations in Operation

The size of this year's harvest was adequate. The enterprises of the grain industry fulfilled their purchase target by 15 October.

The grain industry made careful preparations for the full-scale introduction of wheat purchase by grade. The lessons of analytic tests performed on an experimental basis at 25 locations in 1978 and 30 locations in 1979 were utilized. Conferences and discussions organized for the benefit of the managers of agricultural units, the TOT [National Council of Cooperative Farms] and regional associations contributed to the success of these preparations, as did the purchase and grading demonstrations set up before the start of the harvest. The purchase schedule agreements signed between producers and purchasing enterprises facilitated the coordination of questions related to delivery and purchase (quantity, place and rate of deliveries, storage, accounting procedures, etc.) and smooth work organization.

Delivery bottlenecks were avoided thanks to day-to-day, regular contacts between grain industry enterprises and agricultural units, adapting business hours of delivery points to current needs and technical preparation to provide points to current needs and technical preparation to provide 960 delivery locations with 1,750 delivery points receiving grain crops and with 102 test sites equipped with instruments used for grading. It must be said that the slower rate of the harvest also played a role; due to weather-related factors, business at delivery points was slower than normal. Continuous, balanced fodder supplies also had a favorable effect on the success of purchasing.

The purchasing operation was successful with regard to grading. The laboratory network set up to test high quality wheat has operated in a well-organized manner. Analytic testing was mostly carried out on time. Testing was prolonged in just a few cases. The number of grading disputes was lower than in preceding years. The grain industry performed instrumental grading on about 5,000 test samples from approximately 1.4 million tons of wheat. In total, 2 to 2.5 percent of the wheat tested had to be graded outside of the jurisdiction of grain industry enterprises and the proportion of objections recognized as valid remained under 1 percent. This shows good preparation and cooperation among partners.

In First Place: GK-Tiszataj

With the prolonged growing season and the rainy weather, there has been a negative correlation between this year's high average yields and quality. Varieties that usually produce high quality have generally had lower nutritional value than in previous years. Average baking quality has declined by one half point from last year's good B1 to B1-B2. The percentage of Grade C has increased.

Test data on wheat varieties contracted as high quality wheat show that GK-Tiszataj wheat proved to be the best in terms of quality for this year. Below it, high quality wheat varieties are ranked as follows: Yubileynaya-50, Martonvasar-4, Partizanka, Martonvasar-5. Among all criteria for high quality wheat, the most difficult to satisfy this year was gluten content, followed by baking quality and gluten spread. Martonvasar-4 was graded as high quality wheat at a percentage exceeding the national average in Tolna, Heves and Fejer megye; Martonvasar-5 in Tolna, Pest, Baranya and Fejer megye; Partizanka in Szolnok, Csongrad, Bacs-Kiskun and Tolna megye; Yubileynaya-50 in Csongrad, Fejer, Szabolcs-Szatmar, Bacs-Kiskun, Tolna and Szolnok megye; GK-Tiszataj in Heves, Csongrad, Hajdu-Bihar and Szolnok megye. It must be noted that the entire GK-Tiszataj harvest in Fejer megye was graded as high quality wheat.

Variety in Itself is Not Sufficient

The lessons of 1980 call attention to the fact that, although from a genetic standpoint variety is the primary carrier of quality, ecological factors can have a substantial effect on results. (Another important point is that at the time when purchase by grade was publicized, the variety structure of the fall planting of 1979 was already essentially fixed. Preliminary news regarding the new requirements had an effect on the choice of varieties to be grown.)

To Continue in a Similar Vein

In sum, we can conclude that 1980 cereal purchases were adequate to cover domestic needs (milling, fodder) and export stocks. Good cooperative relationships between agricultural units and purchasing enterprises made an important contribution to crop delivery and storage.

Processing industry needs continue to justify the production of about 1 million tons of high quality wheat annually. In view of the rainy summer weather, the first year of the fullscale introduction of purchase by grade could not provide a sufficient amount of information to evaluate the new wheat purchase system on the plant and national economic level. More experience must be gained, especially to eliminate the effects of the weather and to carefully analyze and realistically evaluate the effects of ecological factors.

The experience obtained thus far must be utilized in our preparations for next year with regard to the results produced by different high quality varieties and the regional distribution of truly high quality deliveries.

On the whole, we can state that 1980 cereal purchase operations were successful. The relationship and the degree of cooperation between large scale farms and the enterprises involved in grain harvesting and purchasing has progressed and strengthened.

Full Scale Evaluation

At the same time, to arrive at a realistic evaluation of the system of purchase by grade on the enterprise and national economic level, it must be recognized that the emerging system of wheat purchase by grade cannot be evaluated realistically as a result of the negative effects of the extreme weather of 1980 on wheat quality. Therefore, the present system of wheat purchase by grade must be used in 1981 without change in order to obtain more experience.

Evaluation of the 1980 grain purchase operation must be completed in time for consideration at the time of the 1981 fall planting with special attention to the effects of designated varieties on quality improvement, the role of ecological factors, the analysis of excess costs associated with separate storage, storage capacity and reducing the time required for instrumental testing.

9164

CSO: 2500

VARIETY IN AGRICULTURAL INTEGRATION FOUND USEFUL

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 49, 3 Dec 80 p 4

[Article by I.G.: "On the Agenda of the Agriculture Committee of the National Assembly: Integration"]

[Text] The recent session of the Agriculture Committee of the National Assembly discussed relations between enterprises and evaluation of integrated organizations. Ervin Zauffa, deputy department head of the MSZMP CC; Miklos Villanyi, deputy minister of finance; Ferenc Biro, deputy chairman of the National Planning Office and Gyula Pales, deputy chairman of MNB [Hungarian National Bank] took part in the session held under the chairmanship of László Csélel.

Imre Kovacs, deputy minister, has presented a report to this body dealing with the various forms of integration found in agricultural production. According to the report, a colorful variety of cooperative relationships far exceeding mere contractual relations has emerged within agriculture. In sectors supervised by the ministry there are 155 joint enterprises, 2 associations and 3 limited liability companies. In addition, records compiled in March of this year include 512 economic, 4 foreign trade and 2 research, development and production companies. Most of these associations came into being with the participation of cooperative farms. Only 10 percent of the founding members are state enterprises. With the increasing economic strength of cooperatives and the relaxation of differing sector, legal and economic regulations, there will be more opportunities in the future for cooperative association between agricultural units and processing or marketing enterprises based on shared risks.

In order to utilize the opportunities inherent in economic cooperation, in the future it would be appropriate to support forms of cooperation encompassing smaller regions, strengthening relations between sectors and affecting several areas of economic operations, while preserving the present rich variety of the types of economic associations and taking into consideration the needs of each unit. These horizontally organized associations would carry out their tasks not primarily through a separate apparatus but by using the expertise within member organizations.

At present there is a large number of associations within agriculture involved in food processing and construction, while the number of forestry and industrial service associations is small. By expanding fields of activity it is possible to exercise a coordinating influence in a number of directions. According to the

position taken by MEM [Ministry of Agriculture and Food Industry] it is necessary to increase the participation of state enterprises in associations. The administration of the sector and representative organizations must pay more attention to discovering the advantages of cooperation, careful selection of sites for various capacities and the formulation of vertical and horizontal forms of integration.

Several of the representatives taking part in the debate emphasized that the successes of the regional cooperative ventures that have shown excellent results so far have been due in large measure to the fact that they came into being as a result of a spontaneous process and founding members were able to decide on the organizational form and content of cooperation relying on their complete familiarity with local conditions. Experience shows that this type of cooperation should not be channeled into rigid legal forms and that their organizational structure and operation is best left to those who will take part in their work.

Imre Kovacs also analyzed in detail the situation of production systems, saying that as a result of dynamic development crop production is now integrated over more than half of the large scale farming acreage, while their results are better than the national average. Production systems operate in a variety of organizational forms. The application of technologies and techniques developed by them, combined with the improving level of the various services they provide, had a decisive influence on raising our cereal production to equal the best in the world.

The representatives participating in the debate added that outstanding results were in part due to the fact that the farms taking part in production systems were the ones that showed the best results to begin with. Istvan Szabo, chairman of TOT [National Council of Cooperative Farms] said that it is quite unnecessary to increase the number of production systems and in fact there is a need for more strictness in reevaluating production systems already in operation. Systems which do not show outstanding results are taking specialists away from production. Csaba Hutter, chairman of the Ferenc Rakoczi II Cooperative said that in many cases agricultural farms choose the production system they take part in on the basis of the fashion of the day and not economic considerations.

The material presented by the deputy minister discussed in detail the experience of agrarian industry associations. The investments to provide a basis for joint production activity started by the four associations have been in the center of attention from the very beginning. In the opinion of MEM, the organizational structure of agrarian industry associations has been proved out in practice. They operate successfully and are becoming capable of acting in the mutual interest of member farms. The experience of past years demonstrates the advantages of concentrating material and intellectual resources. In spite of some positive results, the experience gathered thus far does not justify further expansion of this form of organization; therefore, organization of new associations not justified at this point.

In speaking of combines, the deputy minister said that a high quality of concentration and specialization has been achieved in these few vertically organized large scale agricultural establishments within the enterprises of the forestry, lumber and food industry sectors. Combines show outstanding results, their economic position is solid, their capital strength is substantial and they are spreading

the most advanced production and organization techniques throughout their environment. They have a regular cooperative relationship with scientific research institutes; they test and introduce advanced domestic and foreign research results; several are engaged in independent research programs or belong to research, development and production associations. In sum, combines have fulfilled the great hopes we had about them; therefore, they should be preserved and developed.

A wide-ranging debate has taken place regarding the situation of small scale production and the role of large scale farms in integration. It is clear that large scale farms play an important role in creating the biological conditions necessary for small scale production. In addition, they produce a great proportion of the animal feed and bulk fodder necessary for animal husbandry. Their services contribute to plant protection and transportation while their specialized advice facilitates high quality farming by small producers. Several participants in the debate emphasized the need to encourage the types of farming requiring a great deal of manual labor and small acreage in household and auxiliary plots, because the flexibility and adaptability of small producers substantially exceeds that of large scale farms. In answer to a question, deputy minister Imre Kovacs confirmed that at this time it is not sufficient for cooperative farms to have an interest in the integration of small scale production. In some cases, this activity eats up some of the income of the cooperative. For this reason, during the first half of 1981 the MEM will look into the possibility of finding ways to improve these incentives. In his remarks, Istvan Szabo emphasized that decisions regarding the relative role of large scale versus small scale production should not be made on the basis of some kind of political competition: in each case, the decision must be based on strictly economic criteria. Ervin Zsuffa said, among other things, that we have recognized the opportunities in small scale production and supports have led to outstanding results. But in these days it is no longer sufficient to support the operation of small scale farms: they must be organized to ensure that this form of operation meshes with the social reproduction process. It is a sign of faulty thinking to contrast small and large scale farms: each presupposes the other. Without one another, they would be unable to operate. Priority development of large scale agricultural operations remains a fundamental requirement.

In summarizing future tasks, Imre Kovacs explained that the MEM considers expanded cooperation between the cooperative and enterprise sectors as a basic objective. The organization of crop purchase must also be strengthened. The many forms of economic cooperation and production systems are considered as the most important forms of integration. The efforts of production systems aimed at sector association and the building of further vertical levels deserve support. Gyula Pales added that vertical forms of integration must be strengthened in order to let a strong cooperative food processing industry come into being. Ervin Zsuffa emphasized that the most important condition necessary for a competitive food production is flexibility. The experience obtained thus far indicates that cooperation between small and medium size units, when they operate well, are most likely to satisfy this requirement. For this reason, the ultimate goal is to establish vertically organized relations between enterprises operating on a high level.

SMALL INDIVIDUAL FARMS LACK MANPOWER, RESOURCES FOR ANIMAL RAISING

Warsaw PRZEGLAD HODOWLANY in Polish No 19, 1-15 Oct 80 pp 13-15

[Article by Dr inż Henryk Pelczarski, Institute of Agricultural Economics Experiment Station, Rzeszow: "Small Private Farms Vs Livestock Raising"]

[Text] During the past few years we have been observing the phenomenon in which a substantial proportion of the small peasant farms have been giving up raising the basic types of farm animals. The data from the June census show that more than a fifth of the total number of peasant farms are not raising cattle and hogs simultaneously. The largest percentage of the farms not raising livestock comes from the groups with the smallest number of hectares of farmland. As a result of this fact there is a decline in the procurement of beef and pork slaughter animals from this farm group, which at the beginning of the 1970's contributed more than 50 percent of the country's meat production within the nonsocialized economy. Livestock-raising on the small peasant farms served to supply the peasant family itself, even if it did not provide production destined for the market.

In the Krosno, Przemysl, Rzeszow, and Tarnobrzeg voivodships, the percentage of farms not raising livestock is somewhat lower than the national average, but then nevertheless there are more than 50,000 of them (see table).

The experiment station of the Institute of Agricultural Economics in Rzeszow along with the voivodship offices of the above-mentioned voivodships undertook research to determine the conditions and reasons behind the decision not to raise livestock on a substantial proportion of the peasant farms. The data gathered concerned among other things the size of the farms in hectares, personal data on the family, including the age of the farmers, education, and place of employment, and data on livestock buildings. Information was also obtained concerning the farmers' own assessment of the profitability of livestock-raising, intentions to increase or reduce the size of the farm, and difficulties encountered in agricultural production.

In 39 randomly selected villages in the four southeastern voivodships we examined 1,187 farms which did not raise cattle or hogs in 1979. The villages selected at random included those with a large number of dual-occupation [farm and nonfarm work] farms and those agricultural villages located some distance from industrial centers. There was detailed analysis of 592 farms, that is, 49.9 percent of the total number of farms examined. The analysis left out the farms leased to others (the owners had usually migrated to urban centers); farms which actually do not exist, because the land has been transferred to the state in exchange for a pension or lump-sum payments, or turned over as contributions to RSP [agricultural producer cooperatives] and SKR [cooperative agricultural circles]; farms on which the land has been sold to other users or passed on to successors or the owner has died; and specialized farms which are in the throes of starting up production or the farmers are members of peasant groups. The exclusion of such a large number of farms shows that the phenomenon of the occurrence of farms without livestock is clearly inflated in the mass statistics.

During the period of enfranchisement many new farms (items in the land registry) came into being, but agricultural production is still being conducted only by the initial user. In addition, during the past few years in the southeastern region large changes have been noted in land turnover, particularly between the peasant sector and the socialized sector of the economy (new RSP's and ZGR-SKR [associations of farms-cooperative agricultural circles?] come into being). As the result, a substantial number of farms disappear each year. Because there is no parallel management of ownership and reporting matters, these farms are still included in the statistics. Some owners turned small amounts of land over to members of their family, usually only with the allocation of the building lots.

Characteristics of Farms Without Livestock

Small farms predominate among the peasant farms which do not engage in the raising of cattle or hogs. In our research the farms without livestock come from the groups with the smallest land holdings, because farms with from 0.5 to 2 hectares accounted for 88.7 percent of them, and those with from 2 to 5 hectares accounted for 10.5 percent, with those above 5 hectares representing only 0.8 percent of the sample under investigation. The mean size of farms without livestock was only 1.16 percent of the hectares of arable land. Dual-occupation farms predominate in the group of farms without livestock and comprise 56.6 percent. Pensioners make up 11.1 percent and farmers account for 32.3 percent of the land. Overall, dual-occupation families, including here the annuitants' group, represent 66.7 percent, but the average size of their farms does not exceed 1 hectare of farmland. The small size of these farms and the low profitability of small-scale livestock production influences the decision, particularly that of young people, to take a job off the farm. This is a way which gives the family the possibility of rapidly improving their living conditions

without the need of making changes in the way the farm is run or of making additional outlays, for example, to build livestock buildings, to buy young livestock, and so on. A substantial proportion of the small farms has withdrawn from livestock production (mainly that of hogs and milk cows) and has not yet had a chance to develop a new production structure to correspond to the changed production and economic situation. This caused a clear decline in marketable production, which on small peasant farms came mainly from livestock production, and this influenced the level of income and the investment capabilities of these farms. Although the production level on the small dual-occupation farms up to the middle of the 1970's was even somewhat higher than on those without outside employment, at the present time on these farms there is an obvious decline in production related to the fact that they no longer raise livestock.

Within the whole group examined we can distinguish among certain groups of farms on which there is a shortage of various production factors limiting the raising of livestock. The farms which had a simultaneous shortage of labor and buildings represented 49.2 percent, while those lacking only labor made up 20.9 percent, and those lacking only buildings accounted for 20.4 percent. Only 9.5 percent of the total number of farms analyzed were farms with conditions to carry on livestock production, that is, with sufficient land, labor, and buildings. This is a small percentage of farms on which the resumption of livestock-raising would not require additional outlays or changes in production factors.

The farms without people between the ages of 18 and 65 constantly working on the farm were included in the group of farms on which there was a shortage of labor. Hence, people of advanced age, youngsters attending elementary or secondary schools, and persons employed permanently off the farm were excluded. It is generally known that much work on peasant farms is performed by youngsters and by persons permanently employed in other sectors of the national economy, after work or after school. The exclusion of these people from the labor force was dictated by the fact that given the traditional method of livestock production used on these farms, it is essential to have at least one person on the farm all the time. On certain farms which do not raise livestock, particularly on dual-occupation ones, where the average family consists of 3.5 persons able to work on the farm amounted to only 0.24 persons remaining there, while 1.73 persons worked off the farm. Hence, the potential labor resources exist on these farms, but the current wages paid are encouraging people to take jobs in other sectors of the national economy, not in agriculture.

Farms which have neither a single fixed stall for cattle or hogs were included with the farms without buildings.

Within the group of farms which do not raise livestock, according to the classification adopted, annuitants' farms have the least labor resources, with 83.3 percent suffering from a labor shortage and 75.8

percent stating they fall in the dual-occupation category. There is also a differentiation of the quality of labor in terms of the age and education of the persons being maintained by the family. The proportion of the persons who had graduated from elementary, secondary, or even post-secondary school on the dual-occupation farms amounted to 54.6 percent, but on the farms without anyone working outside, only 8.4 percent. The age structure of people on the dual-occupation farms is also more favorable. On these farms 25.1 percent of the people are over age 50, but on the farms without anyone working outside there are 80.1 percent over age 50. Hence on certain farms the labor shortage, advanced age, and lower qualifications are one of the major factors in the limitation or elimination of the raising of livestock on the small peasant farms.

These farms also achieve worse results in crop production than the farms in the various villages overall. The absence of livestock and therefore manure has an adverse effect on the level of yields of basic crops obtained. According to the farmers' own subjective assessments of the production level compared to neighbors farming under the same conditions, the majority feels that the production level of farms without livestock is low. Only 6.6 percent of our respondents stated that their production level is somewhat higher, while 38.5 percent thought it to be the same, 24.8 percent felt that it was lower, and 19.4 percent considered it much lower. Taking into account the fact that these opinions come from the very farmers involved, we should expect this assessment to be weighted in favor of the farms examined.

There are more women running farms in the group which is not engaged in the raising of livestock. Farms run by women accounted for 42.7 percent of the sample examined. There is an obvious shortage of basic farm tools and machinery on the farms which do not keep livestock. Barely 14 percent of these farms have their own traction. If we take into account the fact that most of the SKR production services are directed to the larger farms first of all, then we can see that because of the lack of tractors many small farms are unable to expand their agricultural production. Farmers emphasize the importance of services as one of the major barriers standing in the way of farm production.

Of the farms examined, 30.4 percent have free stalls for cattle and 19.9 percent have free stalls for hogs. A substantial number of farms have fodder resources not being used. There is a surplus of fodder on 11.8 percent of the farms, and we should emphasize the great capacities for increasing fodder production on the other farms.

Prospects for the Development of Production as Farmers Assess Them

In answer to the question of whether the farmers would begin raising livestock in the near future, 11 percent said they would, but 70.4 said they would not. A shortage of labor was named by 25.8 percent of the farmers as a factor restricting the raising of livestock, while 20.4

Private Farms Not Raising Cattle or Hogs, as Percentage of Total

Item	no. of farms (1,000's)	Size of farms in hectares							
		Total	0-2	2-3	3-5	5-7	7-10	10-15	over 15
Poland									
1977	661.4	21.3	48.0	21.7	12.3	7.1	4.7	3.2	2.8
1978	697.3	21.4	48.9	22.1	12.4	7.0	4.7	3.1	2.7
difference	-4.1	-0.1	-0.9	-0.4	-0.1	-0.1	-	-0.1	-0.1
Bremsa									
1977	13.8	18.6	33.0	9.2	5.6	3.3	3.7	5.9	9.9
1978	12.2	16.0	30.2	8.2	4.5	2.7	3.2	5.5	10.1
difference	-1.6	-1.8	-2.8	-1.0	-1.1	-0.6	-0.5	-0.4	-0.2
Tronky									
1977	9.8	16.0	39.2	11.3	5.2	2.7	2.2	2.3	11.5
1978	9.5	15.7	39.2	10.7	4.6	2.4	1.8	1.7	14.3
difference	-0.3	-0.3	-	-0.6	-0.6	-0.3	-0.4	-0.6	-2.8
Rumada									
1977	17.2	16.9	33.1	9.7	5.0	3.0	2.7	2.5	12.3
1978	15.9	15.9	31.8	8.1	3.9	2.3	1.7	2.0	9.8
difference	-1.3	-1.0	-1.3	-1.6	-1.1	-0.7	-1.0	-0.5	-2.5
Turnabroz									
1977	19.6	16.1	40.9	16.1	8.3	4.3	2.9	2.1	3.8
1978	19.7	16.3	41.6	15.8	8.4	4.3	2.9	2.3	5.3
difference	+0.1	+0.2	+0.7	-0.3	+0.1	-	-	+0.2	+1.5

Data: Statistics of GUS [Main Statistical Office] -- Differences in livestock-raising on private farms

percent of the farmers mentioned the small number of hectares and more than 33 percent mentioned the lack of suitable buildings.

A factor in the restriction of livestock-raising on peasant farms is the conviction that this production is not very profitable. Some 27.9 percent of the respondents stated that livestock-raising is profitable now, but a whole 60.5 percent stated that it was not, while 11.8 percent had no opinion on the subject. As the percentage of owners planning to build new livestock facilities is not great either, only 8.8 percent. This may be the result of the difficulties occurring in the realm of the supply of basic building materials (cement, steel, bricks, and so on).

The farmers questioned consider the current size and structure of production to be correct. We can see this from aspirations concerning the increase in the number of hectares of the farms and their future fate, because there is a predominant tendency to keep the present level of holdings, or even to reduce them: 84.5 percent intend to keep their farm the same size, 10.3 percent intend to reduce it, and only 1.2 percent intend to expand their holdings of farmland. Tendencies to reduce holdings are found particularly in dual-occupation families and in this case the phenomenon should be considered propitious, if it is not just a declaration. Small farms of these owners would be transferred to the role of employee allotments.

Through sales, the transfer of farms for a pension, and the leasing of land, 24.7 percent of the farmers plan to get rid of their farms, but 64.0 percent of the owners intend to pass them on to the successors or to continue to farm them. Farmers' opinions concerning the future fate of their farms and intentions as to changes in their size show that they are not striving to get rid of their farms forever or to make any great changes in the size.

The giving up of livestock-raising on the private farms is an adverse phenomenon, because we are losing production obtained at the least cost using marginal fodder. In addition, the land is being used less and less effectively, and so are the existing farm buildings. Many causes can be listed for the reduction of livestock-raising or the elimination of this type of production on the small farms:

Adverse changes have occurred in supplying small livestock-producers with pigs, the prices of which keep going up*. From 1970 to 1977 the price of piglets increased by 127.5 percent, but the price of hogs for slaughter by kilogram rose by 79.2 percent. The rises in the prices of piglets, fodder, and potatoes, in particular, which are the basic feed in the traditional fattening of hogs, have caused a decline in interest in this direction of production;

Fixed retail prices of food products alongside the growing production costs create a lack of interest in increasing production. The existing price ratios cause a decline in interest in small earnings or income, such as that obtained through small-scale production on a small farm, compared to the earnings outside the farm;

The question of payment for work off the farm is directly tied in with the system of prices. Particularly important is payment for work in terms of the unit of time. The current wage ratios encourage people to take jobs in other sectors of the national economy and not agriculture;

The low level of supply of traction and mechanized power on small farms, alongside the inadequate supply of production services;

The restrictions introduced in free-market supplies of concentrated feed, which are an essential addition to the fodder produced on peasant farms of small area.

Despite the fact that the southeastern region has an unfavorable structure of peasant farms, the percentage of the farms which is not raising cattle and hogs is lower than the national average. The lower percentage of farms without livestock in the southeastern voivodships compared

Staszynski, L. "Chow zwierząt w drobnych gospodarstwach" [The Raising of Livestock on Small Farms], ZYCIE GOSPODARCZE, No 14, 1979.

to the other parts of the country may be the result of the somewhat greater labor resources in these areas and the great tradition of maintaining livestock on the farms. As the labor supply diminishes and the farmers become older, we should count on the possibility of a further rise in the group of farms which do not raise livestock. The resumption of the raising of livestock on those farms which have stopped raising livestock seems quite unlikely. More than 70 percent of the farmers themselves came out against this.

In certain cases there is the possibility of activating farms which do not raise livestock to step up production in other directions. Particular attention should be given to the demand to develop fruit and vegetable production*. For many farms other directions of production, such as the raising of poultry or fur-bearing animals, can also be profitable and produce income.

*Wos, A. "Problemy rozwoju drobnych gospodarstw chlopskich" [Problems of the development of small peasant farms], *NOWE DROGI*, No 7, 1978.

10790
CSO: 2600

EFFORTS TO COMPENSATE FOR SHORTFALLS IN METALLURGICAL INDUSTRY

Bucharest SCINTEIA in Romanian 9 Jan 81 pp 1, 3

[Interview with Neculai Agachi, minister of the metallurgical industry, by Corneliu Carlan; date and place not given]

[Excerpts] Question: In an interview which you gave us at the beginning of 1980 you referred to a number of technical, technological and organizational measures for saving raw materials, other materials and energy which were adopted. What have been the results?

Answer: As a result of the drastic economizing measures taken during the five-year plan, production costs decreased to a significant extent. In 1980, metal production was achieved with material expenditures which were 48 lei less per 1,000 lei commodity-output. This means a saving of 3.5 billion lei compared to the 1975 costs. Unfortunately however, the task of reducing production expenditures for 1980 was not fulfilled. The causes were the prohibition of the commissioning of some new projects intended for the best possible and economical utilization of raw materials and energy resources and the achievement of a coefficient of only 81.1 percent for obtaining metal, exceeding certain specific consumptions in the furnace and steel mill sectors.

I will discuss some concrete measures which we have established whose implementation we are pursuing perseverantly in all metallurgical enterprises and combines. I am referring, in particular, to two of the more important campaigns--which will be continued on an intensive basis this year--which will contribute, in a decisive manner, to savings of 86,000 tons of coke, 240 million kWh and 300,000 tons conventional fuel in 1981 compared with 1980. One of the campaigns deals with the substantial reduction of the consumption of coke and of energy resources, in general. In this sense, along with the adoption of more efficient construction of equipment and aggregates, which produced high-capacity furnaces, a number of technologies were improved. An important concern will be the achievement of a coefficient of 83 percent for obtaining metal, higher than that of last year. The increase in the coefficient will mean an additional 330,000 tons of rolled products. Also, we have taken action to increase the indices of utilization of aggregates and installations by better maintenance and the execution of high quality repairs. Another group of measures deals with the improvement of the parameters for aggregates, the modernization of technologies and of equipment and installations. In order to reduce energy consumption, our attention is being given to increasing the recovery level of heat from gases burned during the

preheating process by repairing existing installations and adding more installations, replacing furnaces with low productivity with induction furnaces, by increasing the level of recovery of heat for rolled products and by setting up installations to compensate for the power factor which assures the reduction of losses of electric energy.

Question: Of course an important area in which metallurgists have special tasks is the utilization of recyclable materials.

Answer: Certainly. In order to recover and use recyclable materials, special workshops have been set up in our units for the reconditioning of tools, spare parts, aggregates and subaggregates and, in particular, for the reconditioning of rolling mill cylinders and casting equipment.

The single national plan for development for 1981 assigns to our ministry the task of achieving a production of 13.7 million tons of steel. In order to obtain this production and the economic effectiveness envisaged, the capacities stipulated must enter into operation. The new units, which will be producing in 1981, are, for the most part, undergoing hot and cold technological tests and will be put into use in the first months of this year. In regard to the quality of our production, considering the concrete tasks we have of manufacturing superior carbon steel which will be able to replace alloy steel, we will extend the processes of advanced desulfurization and degasification of the steel, including deoxidation in a vacuum, electrical resmelting in slag, metallurgy in a crucible with or without the use of heat, bubbles of inert gases or oxygen, as well as deoxidizing additives or alloys outside the smelting furnace.

Question: Are there problems of metal production involving units and responsible organs in other branches which should be resolved without delay?

Answer: Since we have taken measures so that we will not be faced with special internal organizational and technical problems this year, it is necessary that the units with which we collaborate help us more than they have done in the past. We are asking the mining units to deliver coking coal and refractory clays on schedule and in the stipulated quantities. We are asking the chemical industry units to supply the entire quantities contracted for of pyritic ash pellets, aluminum fluoride and plastic granules. We are asking the machine building units to provide all the technological equipment for the plants which are to be put into operation in 1981 as well as the parts and subunits needed for the good operation of our installations and aggregates.

CSO: 2700

SCIENTIFIC RESEARCH IN SERVICE OF CHEMICAL INDUSTRY DESCRIBED

Bucharest SCINTEIA in Romanian 7 Jan 81 pp 1, 3

[Interview with Gheorghe Caranfil, minister of the chemical industry, by Dan Constantin: "Scientific Research and Our Own Technology--Firm Support for the Development of Romanian Chemistry"]

[Excerpts] Caranfil: Although the figures are not yet final, we believe that in 1980 the chemical industry had a commodity-output which was 64 percent higher than in 1975. The principal factor in this increase in production was the rise in labor productivity at an average rate of 6.8 percent a year. As a result, the share of the chemical industry in the overall industrial production of the country was 11.3 percent in 1980, compared with only 8.6 percent in 1975. Physical production of plastics and synthetic resins increased 1.8 times in 1980 as compared with 1975; detergents, 1.7 times; medicines, 1.2 times; synthetic threads and fibers, 1.6 times; and chemical fertilizers, 2.1 times. In 1980 the per capita production of numerous chemical products was at levels comparable to those achieved in the industrially developed countries. This is the case with synthetic rubber, chemical fibers and threads, varnishes and paints.

Question: What are the most important tasks for the chemical industry in 1981?

Answer: On the whole, the tasks for the chemical industry in 1981 refer to the accentuation of the growth rates of the manufacture of products and groups of products of high technicity and economic efficiency, which are produced with reduced consumption of energy and which assure the complex, superior utilization of raw materials. This year, priority will be given to the development of the medicine industry, especially the sector for the manufacture of active substances, antibiotics, vitamins, chemical therapeutic substances and other substances necessary for protecting health and to the development of the organic synthesis industry in order to provide new products which will permit the substantial reduction of the import of chemical products. In the framework of low tonnage production, more than 20 new types of catalyzers and reagents, photographic materials and high-purity materials, intended for the electronics industry are earmarked for manufacture. New units for the manufacture of polyester threads and fibers, which will insure the growth and diversification of the production of chemical threads and fibers, will be put into operation. Also, the range of pesticides available to agriculture will be diversified and production will be increased. New varieties of synthetic rubbers and latexes will be assimilated.

Question: Please describe the role of Romanian scientific research in the development and full affirmation of Romanian chemistry.

Answer: The great achievements of Romanian chemistry have been possible as a result of the effective and efficient support of our own scientific and technological research. Since the establishment of the Central Institute for Chemistry which, at present, groups together all the departmental institutes for research and design, the research centers and laboratories attached to the centrals and combines, and the research activity in the institutes and faculties of higher education, the entire activity in this domain has been concentrated on the major problems of the development of the chemical industry. Today, most of the production of the chemical industry is obtained in installations produced on the basis of our own research and designs, especially in the area of synthetic rubber, plastics, fertilizers, pesticides, medicines, detergents and dyes--fields which are decisive for assuring material and technical progress in industrial and agricultural production. As a result of research and design activity, more than 95 percent of the investment projects executed in the 1976-1980 period were based on technologies of Romanian design and in 1981, this figure will be about 97 percent. These are data and facts which testify to the high authority and prestige of the Romanian school of chemistry.

Question: Year after year, the chemical industry has received significant investment funds. A number of new production capacities were created in the past 5-year plan and this year, other projects will be put into operation. What measures have been taken to insure that the technical equipment of the chemical industry will be used with high productivity and with superior efficiency?

Answer: In order to eliminate shortcomings which, in previous years, have been noted in regard to the complete utilization of production capacities, we have proposed for this year a number of measures which aim at insuring the continued operation of installations at planned parameters, by the strict adherence to technological discipline and the execution of examination and repair work on a timely basis, with quality. We have drawn up a program according to which the necessary spare parts will be produced, for the most part, in the units of the Ministry of the Chemical Industry. In light of the fact that when the tasks were set for the 1981 plan, the production which will be obtained from the new capacities entering into operation was considered, we have drawn up a program of priorities for investments, a program which includes concrete measures, with precise responsibilities assigned to beneficiaries, constructors and suppliers of equipment for respecting deadlines and even reducing the length of time set for putting the project into operation. We are concentrating our attention, especially, on the Teleajen pyrolysis installation, the polymer installations in Timisoara, Brazi and Teleajen, the catalytic cracking installation on the Borzesti and Midia platforms, the Cimpulung and "Viscofil" Bucharest thread and fiber installations.

Question: In 1980, for a number of products of the chemical industry, the specific consumption of energy materials and resources was not within the framework of consumption norms. For this year, the consumption norms are even stricter. How will you act to achieve the decisive, severe reduction of consumption of materials and energy in 1981?

Answer: The reduction of the consumption of raw materials, other materials and energy has been a constant concern for workers in the chemical industry and, consequently, specific consumptions of the main chemical products have decreased continually, reaching, for some of them, the levels achieved in the world. For 1981, the standardized consumptions of raw materials, other materials, fuels and energy were set below the level of the best achievements of the past 5-year plan. In accordance with the tasks set at the RCP plenum of December 1980, we have established a complex action program for the modification of technologies in all installations with heavy consumption for the purpose of modernizing them, eliminating accidental outages and insuring the continued functioning of the installations, for the complete utilization of recyclable materials and secondary energy resources. Decisive factors in this regard are the affirmation of the creative, thrifty spirit of the collectives in the units of the chemical industry, the generalization of valuable technical and organizational solutions, the promotion of technical progress, the strengthening of worker self-management and economic and financial self-administration by the skillful activation of the levers of the new economic-financial mechanism. On the level of the organization of production, the overall contract system will be expanded and directly linked with the way in which the material resources are handled and economic efficiency achieved. The action for the reduction of material consumption also covers the standardization of products, technologies and installations, simultaneous with the narrowing of the range of varieties and sizes. This, actually, all the new investments which will be begun in 1981, will be based on standardized designs, which promote technologies with the least possible consumption of raw materials.

Question: The chemical industry is a large consumer of fuels and energy. Under these conditions, the campaign for saving energy resources has a broad area of application in chemistry. Concretely, what does the chemical sector propose for itself, in this domain, for 1981?

Answer: The campaign to reduce consumption of electric power and fuels is being carried out on a permanent basis, aiming at the modernization of some technologies and replacing some energy-intensive equipment and processes, recouping secondary energy resources, modernizing or replacing steam boilers and burners with low productivity, recovering residual gases. By the application of these measures, about 340,000 tons conventional fuel will be recovered this year. Beginning this year, a number of nonconventional energy sources--heat pumps, various recovery devices, residual waters energy--will be introduced in a number of units.

Question: The chemical sector has special tasks in regard to the utilization of recyclable materials. What measures are being taken to provide the necessary capacities and technologies to the industry for the recycling of materials?

Answer: Last year, we achieved a production of about 1 billion lei as a result of the utilization of recyclable materials; this year, a production of 1.5 billion lei is expected from these material resources, with the largest increases being in articles of used rubber, plastic products, used mineral waters, residual acids and solvents. In order to increase the level of recovery of recyclable materials, there are plans to begin investment projects, in particular, in the tire-reshaping sectors, and to process plastics and regenerate mineral oils on the basis of technologies studied at the Central Institute for Chemistry. Also, the research plans are aimed at the solution of new technological problems thus permitting the expansion of the level of recovery and utilization of secondary products.

DATA ON DEVELOPMENT OF SOCIALIZED AGRICULTURE, 1975-79

Belgrade EKONOMIKA POLJOPRIVREDE in Serbo-Croatian No 11-12, Nov-Dec 80
pp 787-791

[Article by Dragisa Vicentijevic, M.A., Federal Bureau of Statistics:
"Certain Indicators of the Development of Agricultural Organizations in the
Socialized Sector"]

[Excerpt] The number of agricultural organizations of associated labor and farmer cooperatives as of 31 December 1979 was 2 percent greater than as of 31 December 1978. By regions the largest increase in the number of organizations was in Slovenia, where it was about 41 percent, and in Bosnia-Herzegovina, where it was 15 percent over the same period of the previous year.

As agricultural organizations of associated labor and farmer cooperatives become larger, they are being supplied with equipment faster and faster, there are changes in the distribution of their power machines, and they are consuming more electric power and fuel.

The number of workers steadily employed in associated labor as of 31 December 1979 was down 2 percent in agricultural organizations of associated labor and agricultural cooperatives. The number of workers in associated labor in agricultural production proper dropped about 2 percent, while the number of agricultural specialists stayed at last year's level, and the number of veterinarians dropped about 2 percent.

The productive force of labor is increasing as scientific organization of work and up-to-date machinery are applied, and this is tending to reduce the number of employees in agricultural organizations.

As of 31 December 1979 the number of tractors was down 2 percent, while at the same time the number of tractors with more than 120 HP increased about 15 percent, and the number of combines was down about 11 percent from the same date in 1978. Total horsepower of power machines stayed at the previous year's level, while the horsepower of tractors was up about 1 percent, and the horsepower of combines was down about 3 percent. Electric power

consumption dropped 2 percent, and consumption of fuels for power increased 10 percent over 1978. Total consumption of manufactured fertilizers in 1979 was up about 3 percent over the previous year.

The physical volume of agricultural production increased about 6 percent over output in the previous year. The largest impact on the increase in the index of the physical volume of agricultural production came from the yield achieved in the 1979 corn harvest. The yield of corn was up about 16 percent. Better results were achieved in 1969 in the livestock raising of the socialized sector. The number of cattle increased about 3 percent, and there was also an increase of about 1 percent in the number of sheep and a 12-percent increase in the number of head of poultry over 1978.

Agricultural organizations of associated labor and farmer cooperatives increased their holdings of land they actually owned in 1979 by more than 22,000 hectares, which is about 1 percent more than the increase in 1978. Landholdings were increased by purchases from private farmers, by developing new land and by recovering land which had been diverted to other purposes. The largest increase of landholdings was achieved by agricultural organizations in Croatia (about 6,000 hectares) and Vojvodina (about 3,000 hectares).

The total number of private farmers who in 1979 carried on production cooperation with the socialized sector of agriculture dropped about 3 percent. The decrease in the number of private farmers involved in production cooperation in 1979 was largest in cropping (about 1 percent) and in livestock raising (about 3 percent).

There was a considerable drop in the amount of certain types of work done through production cooperation with private farmers in 1979; the largest drop was 20 percent for hauling, 19 percent for harvesting and about 18 percent for threshing. There was also a drop in the supply to private farmers of sugar beet seed (about 5 percent), breeding hogs (about 14 percent) and sheep (about 8 percent). There was a substantial increase in certain services rendered to farmers: 12 percent for deep plowing and about 16 percent for the planting of orchards.

Table 1. Survey of the Principal Indicators of Development of Agricultural Organizations 1975-1979

	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1979</u>
Number of agricultural organizations	2,362	2,704	2,946	125
Workers in associated labor in thousands	206	201	198	96
Index number of the physical volume of production (previous year = 100)	94	107	106	126
Farmland in thousands of hectares	2,098	2,252	2,322	111
Weight gain of livestock in thousands of tons	376	411	508	135

Table 1 (continued)

	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1979</u>
Tractors	25,523	25,825	25,116	98
Combines	11,046	11,094	9,552	86
Electric power consumption in millions of kilowatt-hours	289	305	328	113
Consumption of fuel in thousands of tons	275	291	345	125

Source: Communication No 171 of the Federal Bureau of Statistics, 16 June 1980.

Key to Table 2:

1. Yugoslavia
2. Bosnia-Herzegovina
3. Montenegro
4. Croatia
5. Macedonia
6. Slovenia
7. Serbia as a whole
8. Serbia proper
9. Number of agricultural organizations
10. Workers in associated labor--total
11. In agricultural activity
12. Farming specialists--total
13. With senior and junior postsecondary training
14. Veterinarians
15. Economists
16. Farmland, in hectares
17. Plowland and gardens
18. Orchards
19. Vineyards
20. Meadows
21. Pastures
22. Fish ponds
23. Swamps and bogs
24. Land leased from others
25. Growth of landholdings in hectares
26. Total
27. Development of new land
28. Purchased from private farmers
29. Recovery of land devoted to other purposes
30. Number of livestock in thousands of head
31. Cattle
32. Cows and pregnant heifers
33. Hogs
34. Sheep

Key to Table 2 (continued)

- 35. Horses
- 36. Poultry
- 37. Total weight gain in thousands of tons
- 38. Livestock production
- 39. Cows' milk in thousands of liters
- 40. Liters per cow
- 41. Sheep's milk in thousands of liters
- 42. Liters per ewe
- 43. Unscarred wool in tons
- 44. Kilograms per sheep
- 45. Agricultural machines
- 46. Tractors
- 47. Combines
- 48. Trucks
- 49. Tractor-drawn manufactured fertilizer spreaders
- 50. Tractor-drawn planters for stubble grains
- 51. Mowing machines of all kinds
- 52. Electric power consumption in millions of kilowatt-hours
- 53. Petroleum consumption in thousands of tons
- 54. Motor gasoline consumption in thousands of tons
- 55. Consumption of oils and lubricants in thousands of tons
- 56. Consumption of manufactured fertilizers in thousands of tons
- 57. Production cooperation of private farmers with the socialized sector
- 58. Number of private farmers involved in cooperation in thousands
- 59. In field crops and market gardening
- 60. In perennial plantations
- 61. In livestock raising
- 62. Work done
- 63. Ordinary plowing, thousands of hectares
- 64. Deep plowing, thousands of hectares
- 65. Planting, thousands of hectares
- 66. Harvesting, thousands of hectares
- 67. Threshing, thousands of tons
- 68. Transport, thousands of tons

Table 2. Agricultural Organizations in 1979 by Republics and Provinces

	1	2	3	4	5	6	7	8	
	SRJ	Bosna i Hercegovina	Crna Gora	Hrvatska	Makedonija	Slovenija	Srbija	Kosovo	Vojvodina
9 BROJ POLJ. ORGANIZACIJA	2946	258	27	688	162	424	1589	727	134
10 Radnici u udruženom radu — ukupno	198060	12696	2028	38802	25197	14371	104966	36282	7633
11 U poljoprivrednoj delatnosti	138016	7875	1363	26150	20234	8856	73538	23210	5295
12 Poljoprivredni stručnjaci — ukupno	20960	1429	235	3442	2451	1535	11868	5014	827
13 S fakultetom i višom školom	9435	681	107	2110	1143	626	4768	1903	406
14 Veterinari	3086	98	9	894	112	251	1722	781	95
15 Ekonomisti	11608	682	68	2334	674	553	7297	2834	547
16 POLJOPRIV. ZEMLJIŠTE u ha ¹⁾	2322	152	28	421	516	66	1139	306	95
17 Oranice i bašte	1268	54	2	300	115	25	752	113	34
18 Voćnjaci	41	6	1	4	6	4	20	13	5
19 Vinogradi	38	1	1	6	14	4	12	3	1
20 Livade	109	19	4	29	2	15	40	24	1
21 Pašnjaci	832	66	20	60	379	18	289	146	54
22 Ribnjaci	21	3	—	7	—	—	11	1	—
23 Trstici i bare	33	3	—	15	—	—	15	6	—
24 Zemljište uzeto u zakup ²⁾	34955	97	—	10859	956	1596	21447	866	700
25 POVEĆANJE ZEMLJIŠNOG FONDA u ha ²⁾	14328	1571	—	5838	761	1456	4702	1901	168
26 Ukupno	4128	1221	—	1533	53	648	673	486	142
27 Osvojene nove površine zemljišta	9340	73	—	3874	708	807	3878	1394	26
28 Otkupljeno od zemljoradnika	860	277	—	431	—	1	151	21	—
29 Povraćaj uzurpiranog zemljišta									
30 BROJ STOKA u hilj. gula	447	34	2	160	20	60	171	104	2
31 Goveda	90	8	2	12	10	12	46	23	1
32 Krave i stoeune junice	1435	95	7	425	72	129	707	188	17
33 Svinje	249	19	3	23	165	—	30	17	4
34 Ovce	3	1	—	—	1	—	1	—	—
35 Konji	23000	1953	2	6899	2295	8999	2852	1370	265
36 Živina	508	23	1	194	19	105	167	66	3
37 UKUPAN PRIRAST u hilj. tona	128	8	1	61	3	16	40	27	3
31 Goveda	228	12	1	74	10	19	112	31	3
33 Svinje	4	—	—	—	—	—	—	—	—
34 Ovce	148	2	—	59	3	70	14	8	6
36 Živine									

1 As of 31 May.

2 As of 31 December.

Table 2 (continued)

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	1 SPRJ	2 Bosna i Hercego- vina	3 Crna Gora	4 Hrvatska	5 Mako- donija	6 Slovenija	7 Svega	8 Srbija uža te- ritorija	Kosovo	Vojvo- dina
38 STOCARSKA PROIZVODNJA										
39 Kravlje mleko u hilj. litara	351498	26245	4572	53385	31872	47415	180009	99390	1403	87016
40 Po kravi litara	4649	3990	3480	5237	3952	5724	4665	4715	2556	4460
41 Ovčije mleko u hilj. litara	4116	6	157	123	3085	—	745	466	52	227
42 Po ovci litara	30	21	59	47	27	—	35	36	18	40
43 Noprena vuna u tonama	428	27	6	28	282	—	85	32	7	46
44 Po ovcu kg	19	21	17	13	19	—	24	18	20	33
45 POLJOPRIVREDNE MASINE										
46 Traktori	25116	1242	154	4282	2997	1385	15056	3462	945	10629
47 Kombejni	9552	436	9	1520	821	262	6504	1371	407	4726
48 Kamioni	3539	421	17	631	352	305	1813	1074	115	624
49 Traktorski rasipači mineralnog đubriva	3640	240	28	624	469	325	1954	596	137	1221
50 Traktorske sejalice za strna žita	1062	194	6	559	439	130	2734	718	189	1827
51 Košilice svih vrsta	1875	186	46	319	115	312	895	383	46	466
52 Urođak električne energije u mil. kWh	328	15	2	60	27	21	203	46	12	118
53 Urođak nafte u hilj. tona	316	15	1	59	21	11	209	46	7	156
54 Urođak benzina u hilj. tona	15	1	—	2	2	1	9	4	1	4
55 Urođak ulja — maziva u hilj. tona	14	—	—	6	1	1	6	2	—	4
56 Urođak mineralnih đubriva u hilj. tona	797	38	2	235	42	44	436	89	28	328
57 PROIZVODNA SARADNJA ZEMLJORADNIKA SA DRUSTVENIM SEKTOROM										
58 Broj zemljoradnika — kooperanata — u hilj.										
26 Ukupno	857	77	7	139	55	73	266	305455	19	182
59 U ratarstvu i povrtarstvu	526	44	1	77	47	17	340	178	15	147
60 U dugogodišnjim zasadima	65	7	—	10	3	7	38	35	1	2
61 U stočarstvu	417	28	6	94	7	65	217	139	3	75
62 Obavljeni radovi										
63 Obično oranje u hilj. ha	162	3	—	11	14	1	133	19	4	110
64 Duboko oranje u hilj. ha	142	3	—	8	1	1	129	6	1	122
65 Setva u hilj. ha	256	4	—	14	6	1	231	15	5	211
66 Žetva u hilj. ha	179	3	—	18	20	1	137	35	14	8
67 Vrtidba u hilj. tona	590	10	—	69	41	2	467	113	43	311
68 Transport u hilj. tona	1057	3	—	87	38	13	916	90	15	845

ELECTRIC POWER STATUS, PLANS

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 7 Jan 81 p 2

[Text] The capacity of Yugoslavia's hydro and thermal power plants has at this point reached good dimensions, though not altogether satisfactory. The figure is 13,977 megawatts, which, depending on hydrological conditions, is sufficient to generate more than 60 billion kilowatt-hours of power per year. That is, the potential of the hydroplants is such that they yield about 50 percent of the current during the year provided there is no drought. Consequently, 6,201 megawatts is a large figure by our standards and represents 44.3 percent of total installed capacity within the framework of the associated electric power industry. Thermal plants account for 7,776 megawatts, or 55.7 percent of total installed capacity of all power plants.

As for hydroprojects, which are divided into run-of-river and storage plants, the distribution is such that run-of-river plants have a share of 18.4 percent in the generation of power, storage plants 22 percent, pumped-storage plants 3 percent, and small hydroplants 0.9 percent. Coal-fired thermal plants generate 39.7 percent, and plants using liquid fuels and gas provide 12.1 percent of the electric power. Factory steam plants, usually referred to as "energane," represent 3.9 percent of electric power output.

This is a picture of our sources of light that are available at the present moment. This year and especially next year should bring more marked stabilization of the electric power industry so that the supply of power to consumers can be guaranteed and more regular. That is, the role of hydroplants continues to be very great, but their employment depends on rain and snowfall. It is a favorable circumstance that the last 4 years have been wet. That is why there have not been any aggravated and lasting difficulties, but only occasional and brief difficulties in supplying consumers.

It is not difficult to draw a conclusion as to the kind of task facing the associated electric power industry during the period covered by this medium-term plan when we bear in mind that the generation of power is to be increased from 60 billion kilowatt-hours in 1980 to 88 billion in 1985. If we add to all this that preference is being given to large generating

units, it is certain that this involves not only sizable investments, but also a huge increase in coal production. At present the largest units we have on line are the 308-megawatt units at Obrenovac. There are quite a few 210-megawatt units, but there are also quite a few smaller ones. Turbine-generator units with a capacity of 500-600 megawatts come into consideration at the Nikola Tesla--B Thermal Power Plant and in Kosovo, at Kolubara, and so on. Some of them will go on line in just a year or two, which for all practical purposes--even though hydroplants are still being built--would make steam plants predominant. This means greater reliability in the power supply, but it must be more expensive than the power generated in hydroplants.

However, the large demand for electric power makes that kind of choice uncertain. After all, we must not forget that by 1990 we must make provision for 119 billion kilowatt-hours of power, and at the end of this century, or a bit later, about 230 billion.

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MONTENEGRIN FOREIGN ECONOMIC RELATIONS, 1980

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 8 Jan 81 p 1

[Text] In the sector of foreign trade relations the Montenegrin economy performed and exceeded the tasks contained in the Resolution for 1980, since exports were increased, while imports were slowed down. Up through 25 December commodity exports from Montenegro in 1980 recorded a value of 3,702 million dinars. This is 788 million dinars, or 27 percent, more than in 1979 (up to 26 December). At the same time the value of imports was 7,641 million dinars, or 318 million, or 4 percent, less than in 1979. Thus Montenegro's trade deficit in 1980 was 1,106 million dinars, or 22 percent, smaller than in 1979. In spite of the obviously good results achieved by this republic's economy in the past year in its foreign trade, the coverage of imports by exports was only 48.5 percent.

It is important to mention that the value of exports to the convertible area during 1980 was 1,964 million dinars, which is 21 percent more than in 1979. Imports from the convertible area showed a value of 5,673 million dinars and were down 4 percent from 1979.

The dominant category in exports during 1980, with a share of 34 percent, was nonferrous metals or, to be more precise, aluminum produced in the Aluminum Combine in Titograd, and then came machines with a share of 10 percent, power machines (Obod in Cetinje) with a share of 10 percent, steel (the steel mill at Niksic) with a share of 6 percent, paper (the pulp and paper mill in Ivangrad) with 4 percent, and textiles with a share of 4 percent. To be more specific, manufacturing and raw materials had a share of 70 percent in total exports, equipment a share of 10 percent, and consumer goods a share of 20 percent. Manufacturing and raw materials were also dominant in imports with a share of 56 percent, and they were followed by equipment at 35 percent and consumer goods with a share of 9 percent.

According to Nikola Samardzic, chairman of the Republic Self-Managed Community of Interest for Foreign Economic Relations, last year's coverage of imports by exports with countries with which Yugoslavia has bilateral payments agreements was 91 percent, with the developing countries it was 203 percent, and with the advanced western countries it was only 17.5 percent.

Samardzic pointed out the notable results in the sector of foreign exchange proceeds from invisibles, especially tourism and maritime shipping, so that Montenegro covered most of the expenditures from the current balance of payments with foreign countries.

Proceeds from tourism and maritime shipping in 1980 were 3,950 million dinars greater than the value of commodity exports. Even so the Montenegrin economy does not possess foreign exchange, though the influx of foreign exchange at the level of the republic mostly covers the current balance of payments with foreign countries. The reasons are that considerable amounts of foreign exchange realized through tourism are drained off through private clearing transactions and are lost to other republics through the business operation of work units and OOUR's [basic organization of associated labor] whose parent organization is located outside Montenegro. That is why an acute foreign exchange illiquidity is typical in Montenegro, and this is having an impact on the business operation of a sizable number of economic organizations.

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NEW FACTORIES TO BE BUILT IN MONTENEGRO

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 9 Jan 81 p 1

[Text] Preparation of financial and technical studies of capital investment projects and other work has begun related to construction of several factories in Montenegro which would manufacture from the steel of the Niksic steel mill and aluminum of the Titograd Combine into various finished products very much needed by industry, construction and other sectors of the economy. The plans call for building a bimetallic strip factory in Danilovgrad, a factory for making springs at Bijelo Polje, an aluminum construction fabrication plant in Ivangrad, and a factory at Kolasin for making aluminum-steel power cable for overhead transmission lines. Previous plans called for a factory that would make welded steel pipe to be built at Savnik.

Two Montenegrin opstinas--Mojkovac and Pluzine--will also have new factories: the former a castings plant using zinc from the Brskovo Mine, which would probably be aided by Zorka of Sabac, and the latter an electrode plant in whose construction Gorenje of Velenje is interested. Construction of a container factory at Niksic is supposed to begin soon, and at Savnik they are preparing to open their own "factory"--a quarry for the special stone Siga [stalagmite], which is being used more and more as a facing stone for various structures.

The principal investors, the Boris Kidric Steel Mill in Niksic and the Aluminum Combine in Titograd, now confront the task of establishing real calculations for their production programs and of finding the most suitable solutions with the basic banks in the republic for financing the construction of new factories.

According to current estimates, the new factories and plants would employ more than 2,000 workers, which is a sizable number since the new manufacturing plants would mostly be built in the less developed opstinas of Montenegro. Development of metal manufacturing plants is one of the principal development goals which Montenegro has in the coming planning period; in the period up to 1985 it intends to enrich its economic structure, which at present is rather undifferentiated, and in that way to reduce not only differences in level of development relative to the rest of the country, but also its own interregional differences.

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BOSNIA-HERCEGOVINA FOREIGN TRADE FOR 1981

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 13 Jan 81 p 3

[Article by M. Mirnic: "Preference Given to Reduction of Import-Dependence"]

[Text] Businessmen in Bosnia-Herzegovina have by all appearances made their decisions and prepared themselves for very intensive activity in foreign trade this year. This conclusion is supported by the numerous documents which have been offered and adopted, including the "Qualitative Criteria for Correlation of the Elements of the Bases of Plans for Foreign Economic Relations in 1981," which was adopted toward the end of last year (in its first version) by the Executive Committee of the Assembly of the Bosnia-Herzegovina Self-Managed Community of Interest for Foreign Economic Relations.

According to this document, total exports of goods and services in 1981 should show a nominal increase of 21 percent over last year: 18 percent with the convertible area and 25 percent with the bilateral payments area. Total imports of goods and services are to be held at 16.3 percent: 14 percent with the convertible area and 20 percent with the bilateral payments area.

Imports of raw and manufacturing materials from the convertible area (crude petroleum, coking coal, natural gas, etc.) can be planned--according to this document--only up to the value and amount set forth in the projection of the republic's payments-balance position for 1981. In the regional planning of imports and the outflow of foreign exchange for manufacturing materials emphasis is put on solutions offering a possibility of reducing the dependence on imports--especially from the industrial countries of the West, on the assumption that this reduction would be made up for with domestic products and imports from bilateral payments countries and the developing countries.

The criteria that have been offered state that imports of equipment from the convertible area are to be held at a nominal increase of 10 percent over 1980. Priority is given to obligations carried over from last year,

to spare parts and equipment for general overhaul; to consent orders issued in 1980 related to imports to be made in 1981 (on a selective basis); to the import of individual machines to replace worn-out equipment--also selectively, and so on. Priority is also being put on the importation of equipment for new plants and expansion of existing ones oriented toward development of production for export and for development of raw materials capacities which contribute to augmentation of exports or help to reduce the dependence on imports, once again on a selective basis.

However, when it comes to imports of consumer goods in 1981, it is emphasized that they must be held to the actual figure for last year, the planned increase of imports of manufacturing materials is 20 percent, and that of equipment 10 percent. The degree of coverage of imports by exports of goods is planned at an average of 5 percent: 5 percent with the convertible area and 6 percent with the bilateral payments area. Nor is the outflow of foreign exchange on an invisible basis (except payments to repay loans and obligations under international conventions) to be greater than this year's and last. In accordance with the projection of the republic's payments-balance position for 1981, members of the SIZ [self-managed community of interest] for Foreign Economic Relations, thanks to the growth we have mentioned, will this year ensure an overall 67.8 percent coverage of imports by exports of commodities: 63.4 percent with the convertible area and 76.2 percent with the bilateral payments area.

Foreign economic relations also occupy a dominant place in the Resolution on Basic Guidelines and Policy Outline for Socioeconomic Development of Bosnia-Herzegovina in 1981, which the delegates of the chambers of the assembly of this republic adopted in late December. According to that document, emphasis in activity will be put on ensuring conditions for achieving a dynamic growth rate of exports of goods and services and the overall influx of foreign exchange.

In order to achieve a growth of commodity exports of about 7 percent in real terms (or, say, 21 percent in nominal terms), in accordance with the needs for more rapid and harmonious development and the necessary growth of commodity imports of about 4 percent in real terms, efforts will be directed along several lines. These include faster inclusion of the economy of Bosnia-Herzegovina in the international division of labor, that is, in trade and establishment of more harmonious relations with various regions of the world.

The orientation in export policy is on more dynamic growth of exports of industrial products and services--especially those which show a larger net foreign exchange result and a larger share of domestic content. Plans are calling for encouraging and ensuring faster growth of the production of goods and services intended for export and a slowing down of domestic demand and price rises. The plan states that organizations of associated labor will establish broader relations with one another on the basis of shared income and will have a greater influence on the establishment and

conduct of policy of export stimulation. In that context the emphasis is on creating conditions and undertaking measures and efforts so that commodity imports are as optimal and selective as possible and so that they are oriented--within the limits of the projection of the republic's payments-balance position--on the basis of plans for foreign economic relations of organizations of associated labor which they have reconciled with one another.

The general assessment is that these efforts on the part of organizations and economic policy measures should ensure a reduction of administrative regulation in this area, faster achievement of the pooling of labor and capital for the joint earning of foreign exchange, expansion of cooperation and more balanced trade with the developing countries--primarily through long-term forms of cooperation, and then--more rapid development of commodity trade and other forms of economic cooperation with the socialist countries, and so on. An appeal is also being made to take the fullest possible advantage of the opportunities that arise from the Agreement with the European Economic Community, especially to augment exports, but also to increase the economy's competitiveness. This is to be done above all by raising labor productivity, by reducing production costs, by exempting products intended for export from the republic income tax and other measures.

This year's plan also includes achieving faster growth of the inflow of foreign exchange from invisibles--specifically by carrying out capital investment projects abroad, and it also states that in importing manufacturing materials which cannot be replaced by domestic materials, priority is to be given to imports which have essential importance to increasing industrial production--especially production of products intended for export and for meeting the basic needs of the domestic economy. And priority in the importation of equipment is to be given to that equipment which is not produced in the country and which contributes to faster completion of capacities under construction, to reconstruction and modernization, and also to substitution of imported energy fuels and raw and manufacturing materials by domestic materials.

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